Chaetura
pelagica

SBr 97.41.9 (31)
v. 34

Chaetūra pelasgica

1889 apr. Wav. 19 (Fax) 1888.

April Wakefield 22^{1} flock (Torrey) 24^{do} - 30^{do} - Cd 30^{1} 1889. Cg. 23④ (5.30 P.M.) G. 2 (Tor) - Cd. 24^{4} - G. 25㊷ c (Tor.) - Way-Cd. 26^{20} - Cd. 27^{10} 1891. Cd. 29② 1892 29^{1} (Fax) 1893

May Cg. 4^{1} - Cd. 5^{4} - C. 8^{2} - Cg. 9^{4} - B. 11^{6} - C. 12^{2} - B. 14^{15} - Cg. 16^{1} - Cd. 17^{10} - Cg. 20^{3} - Cg. 23^{2} - Cg. 25^{3} - Cg. 28^{3} - W. 29^{6} - B. 30^{2} - W. 31^{4} 1889.

June Cd. 1^{10} - G. 3^{2} - W. 4^{2} - Cd. 5^{1} - Cg. 6^{1} - Cd. 7^{1} - Cg. 8^{1} - Cg. 10^{2} - Cg. 14^{2} - Way 16^{6} - W. 20^{2} - Cd. 21^{1} 1889. Way-Cd. 1^{6} - S. 10^{40} - 1890

July Cg. 2^{2} - Cg. 5^{2} - Cg. 7^{2} - Cg. 17^{3} - C. (Nortons woods) 19^{12} - Cg. 23^{2} - Cg. 26^{2} - Cg. 29^{3} - Cg. 30^{2} 1889.

Aug Cg. 1^{3} - Cg. 5^{5} m(?) - Cg (over) 8 4m - C. 9^{1} - Cg. 11^{1} m. - Cg (over) 16 3m. - Cg. 17^{3} m. - Wellesley 19① ^{50} Denton - Cg (over) 24^{2} m. - Cg (over) 27^{1} m. 1889.

May B 2^{2} - Cs. 3^{2} - Cg. 4^{2} - Cg. 5^{2} - Cg. 10^{2} - Cg 12^{2} - Cd. 15^{8} - Wm 16^{2} - Cs. 18^{4} - Wm. 19^{8} }15 - Cg. 21^{2} - Cs. 23② - Cs. 24^{5} - Cs. 28^{2} - B. 29^{10} - Cd.-Way 30^{10} - Way 31^{10} - 1890

Marthas Vineyard 8^{hd} - 10^{2} (Fax) - 11^{4} (Fax) - 12^{2} Fax - Cs. 15^{2} - Cs. 17^{2} - Cg. 20③ - Cs. 21^{4} - Way-Cd. 23^{40} - Cd. Balls H 24㉚ c - Cg. 25^{2} - Cg. 27③ - C. Carl 28^{30} - N. Truro 31^{2} 1891.

2^{2} 3^{4} 4^{2} 5^{2} 6^{8} 7^{8} 8^{10} 9 - 10^{10} 11^{20} 12^{10} 13^{25} 14^{10} 15. 16 17^{10} 18^{20} 19㉚ 20^{6} 21^{4} 22^{6} 23^{75} 24^{30} 25^{20} 28^{10} 29^{8} 30^{6} 31^{6} Concord

1 ⑫ ⑥ (arrival) - 9^{1} - 10^{hd} - 11^{2} - 14⑦ 2 - 15③ - 18^{6} - 19^{6} - 20^{4} - 21② - 22② - 23^{2} - 24^{2} - 25^{2} - 26^{6} - 27㊿ (Balls H) 28 ⑫ 15 29^{20} - 30 - 31^{12} - Concord 1893. C. pelasgica

June Cd. 1^{6} - Cg. 2③ - Cg. 3^{2} - Cg 4② - Cs. 5^{5} - R. 7^{2} - B. Wm. & Bo. 8^{30} - Cg. 11③ - B. 12^{6} - Swampscott 13^{6} - 14^{10} - 15^{4} - Cg. 20④ - Cg. 21④ - Cg 22④ - Fal. 24^{6} 25^{10} 26^{10} - M.V. 28^{50} - 29^{10} Cg. 30③ 1890

" North Truro 1^{6} - 2^{6} - 3^{4} - Cg. 4③ - Cg. 10③ - 1891.

" 1^{6} - 2^{25} 3^{10} 4^{20} 5^{15} 6^{10} - 7^{20} 8^{15} - 12^{4} 13. 14. 15^{6} 16^{2} - 17^{4} 18^{6} - 19^{6} - 20^{4} - 21^{3} - Concord 22^{6} - 23^{4} - 29^{8}

" Concord 26, 27, 28, 29, 30^{7}

July Edgartown 1^{10} - 4^{10} - Falmouth 5^{10} - 6^{15} - Cg. 8^{1} - 9^{1} - 11^{1} - Martha's Vineyard 14^{15} - 15^{6} - 18^{4} - 19^{2} - 20^{6} - 21^{10} - Cg 26③ - M.V. 29^{6} 1890.

1^{20} 2 to 10 - 11^{8} 12. 13 - 14^{6} 15^{10} 16^{8} 17 - 18^{10} 19^{1} - 20^{6} 21 - 22⑳ - 23^{6} 24^{6} 25^{6} 26^{15} 27^{10} 28^{6} 29^{15} 30^{10} 31^{15} Concord

1^{5} - 2 - 3^{5} - 5^{10} - 6^{10} - 7 - 8 - 11 - 12 - 13 - 14^{3} - 15^{4} 16^{4} - 17 ⑮ ⑤ - 18^{4} - 19^{2} - 20^{1} - 21② - 22^{2} - 23⑫ - 24② (in chim.) 27^{1} - 28⑥ - 29^{4} - 30⑮ - 31⑥ Concord 1893

Aug. M.V. 3^{15} - Cg. 8㉟ m - Cg. 11⑫ m. - Cg. 12^{8} m - C. 13^{10} m. - C. 14^{15} m - Cg. 15^{12} m - 18⑧ [illegible] 19⑥ [illegible] - Cg 20⑧ - 21⑩ - Longwood 22^{30} - Fal. 24^{2} - B. 27^{6} 1890.

" 1^{10} 2^{6} 3^{5} 4^{6} 5^{4} 12^{4} 13^{6} 14^{4} 15^{4} 17^{2} 20^{2} 21^{6} 22. 23. 24⑮ c - 26 ② ① ⑥ - 28^{5} - 29^{15} - 30^{10} 31^{10} Concord

1④ - 2^{2} - 3④ - 4⑨ - 5^{1} - 6② 7② - 8^{6} 8 - 9㉚ circling over village at noon. 10^{2} - 11 ⑭ ⑫ - 12^{4} - 13^{6} - 14 ⑳ ㉚ } River - 16 ⑳ ㉚ 19 ⑩ ㉚ - 20^{6} - 21 ⑬ (150) 22^{hd}

24 (40) (100) - 25^{hd} - 26^{2} - 27② - 28⑦ - 30⑤ - 31⑫ Concord 1893.

Sept Waverley (Fax) 1^{3} - 2^{1} - C. Nortons woods 4⑳ - Wav. 14^{1} mig (Fax) - Wav. 17^{3} (Fax.) - Wav. 18^{5} (Fax) - M. Melrose Highlands - Torrey 1 - 2 - 12^{2} - 13^{1} - 18^{2} - 19^{3} - 23^{1} - $26^{30 \text{ or more}}$ 1890

" 1^{15} 3^{12} 4⑧ 5^{1} 6^{2} mig? 7^{2} mig? 10^{1} 11② (Balls H) 13③ do 16^{1} do Concord

2 (40) ㉚ - 3⑤ - 4^{15} - 7^{1} flying E. at sunset. - 8^{1} (Balls H.) 9 (75) ㉚ (15 mig) - 10 ⑲ ⑦ River at sunset - 13 ⑲ sunset. Balls H. - 16 ⑦ over Balls H at sunset - 18 ④ over Old Manse at sunset. - Concord. 1893.

B. F. = Barrett farm
B. H. = Ball's Hill

Chaetura pelasgica

1894

April

30^{7} (Fax) 1894.

" Jam. Plain 26 c.e. Fax. Cd. 30② 1895

" 22 heard over at Ball's Hill 6 P.M., lightning. 26^{1} 27^{1} 28^{1} Concord Dedham 18^{1} (Worthington) W. Rox 19 (Allen) 1896

24 heard over Ball's Hill 7 P.M. Concord 25③ 26^{hd} 27^{hd} 28^{2} 29^{2} 1897 Cd. 26^{hd} H. Holden B. F. 29^{hd} Concord, 1899.

May

Concord 1^{hd} 3⑳ 4㉚ 5^{10} 6^{15} 7^{10} E. Lex 10^{1} Concord 12^{6} 13^{12} 14^{10} E. Lex. 15 16^{6} Cd. 19㉚ (Ball's H.) Cg. (over) 22^{1} 24^{1} Cd. 27^{15} Cg 30② 1894.

Concord 1⑩ 2^{6} 3^{4} 4^{6} 5^{6} 6^{6} Cg. 8^{1} Cg. 9^{1} Cg. 10^{1} Cd. 12^{10} Eel Pond, N. Truro 19^{1} Cd. 23^{5} c. Cg. 25^{hd} Cg. 26③ 1895

Cg 2^{1} Cd. 3^{2} Cg 6^{1} 8^{1} 9^{1} Concord 1⑤ Hayes Place Cg 4② Cg. 9③ 1897. 1896

Ball's Hill 2 indiv 5 P.M. 3⑤ 4⑮ 5^{hd} 6^{hd} 7^{hd} Ball's Hill 9 (100) 10^{12} 11⑫ 12⑥ 13^{4} 17㉕ 18㉙ 22^{1} [Cg. over 23 – 29$^{2-3}$] 29^{6} 30⑦ 31 Concord 1898 C. pelasgica.

1^{hd} 2^{4} 3^{2} 4⑫ 6^{12} 7^{2} 8^{4} 10^{2} 11, 12, B.H. 13⑯ B.H. 14㊵ B.H. 17㊵ B.H. 18 (100) B.H. 19 (100+) B.H. 20^{50} B.H. 21^{12} B.H. 29^{10} 30^{2} Concord Cg. 4② W.D. Cg. 11 few W.D. 1899

June

Grover 6^{1} Cd 7^{2} Wareham 9^{10} 10^{8} 11^{10} 1894

Cg. 8^{2} Cg. 9② C. 11^{6} Cg. 21^{2} Cg. 22^{3} Cg. 27^{1} Cs. 30^{1} 1895

Cg. 18^{1} C (Elmwood) 19③ 1897. 1^{hd} B.H 2㉕ B.H. 4㊵ B.H 5^{15} (2 in cabin chimney) B.H. 6^{10} 1 cabin chimney B.H. 12^{1} Cg. 13^{2} Cg. 17^{2} Concord 21^{4} 23^{8} Cg 29^{1} 1898

3^{1} 5^{3} 6^{1} 10^{2} 11^{3} Our garden, Cambridge, W. Deane. 1899.

July

Cambridge (garden) 2^{1} 3^{1} 4^{2} 5^{1} 6^{1} 9^{1} 10^{1} Chas Riv. 11^{3} Cg. 14③ Cg. 16^{2} Cg. 18^{1} Cg. 19^{2} Milton 22^{2} Cg. 23^{2} Cg 24^{2} Cd. 25^{6} (nest with young in cabin) Cg. 26^{2} Cg. 30^{2} 1894

Cg 5^{2} 7^{2} 8^{2} 9^{2} 10^{3} 1895

August

Cambridge garden 1^{2} 2^{2} 3^{2} 4^{2} Cd. 5^{30} Cg. 8^{2} Cg. 9⑤ Cd. River 12^{150} Cg 14^{2} Cg 17 (4) Cg 18^{2} Cg 22^{1} 1894

Cg 5⑫ (sunset) 6^{hd} Cg. 7⑧ flying high at 6 P.M. Cd. 8^{4} Cg 9② Cg. 12⑧ Cg 23^{4} Cg. 26⑫ (sunset) 1895

Cg 2⑧

Flying over our garden, Cambridge 17^{2} 18^{4} 19^{8} 20^{6} 21^{2} 24^{1} 26, 27^{2} 28⑥ 30^{4}, 1897. Cg 18 several 1898 Cg. 9^{2} 1899.

September

Chaetura pelasgica

1889 Mass.

April 22 Wakefield. – "I saw quite a flock of Chimney Swifts on the 22nd xxx in Wakefield, near the lake. They were there on the 24th and again this morning" (Torrey letter Apr. 30/89) Early arrival

(I saw a single bird at Concord on the 30th and Denton reports one at Wellesley the same day.)

Belmont. – "Mr. Faxon ~~found them April 27~~. saw Swifts last year April 19th. This year he found none in April. (Torrey letter May 3, 1889) Seen Apr. 19

May 29 Cambridge. – Although not nearly – perhaps not one-tenth – as numerous as of yore Chimney Swifts are careering and twittering over my garden nearly every hour of the day (Last year a pair nested in a chimney of Mr. Paine's house on Sparks St.) I see them frequently flying three together Flying by threes

June 16 Wayland. – One or two only about the town. Faxon raised the question whether this Swift does not move its wings independantly, or alternately at times. We were unable to settle this but it looks as if he were right. Wings moved independantly of each other?

" 30 Ashby. – Swifts very numerous about this old town. After watching them for several days, both with and without a glass, Faxon and I have concluded that they beat their wings alternately most, if not all, of the time. The White-bellied & perhaps the Barn Swallow also do the same thing but much less often Wings moved alternately

July 30 Cambridge. – During the past month I have seen two or three Swifts daily, flying over my garden, especially about sunset. It is evident from their actions that they are old birds which have not yet brought out their young. They must breed later than any of the Swallows. Late breeders

Chaetura pelasgica

1890 Mass.

Aug. 8 Cambridge. Late this afternoon (about 6 o'clock) I heard Swifts twittering over my house and going out found a large body of birds darting about the tops of the lindens where they were evidently finding an abundance of food, probably small Diptera. For more than an hour they kept dashing back and forth around and between these trees then, sometime after sunset, as twilight was beginning to fall, they one by one ~~but~~ in quick succession, left the place and in a loose straggling body disappeared high in air towards the S.E. I am convinced that this was a flock of migrating birds as no such numbers have bred in this neighborhood and I have seen no Swifts about the place for more than a week previously. I found it impossible to count the members of this flock at all accurately but there were certainly as many as 30 and I think not over 40. They confined their flight to a space of less than an acre ~~of space~~ while feeding and kept up an incessant twittering. I am very sure that they appeared at some time between 4 and 6 o'clock as I made the circuit of the place at the former hour without seeing or hearing them. Migratory flock.

" 11 About a dozen flying in a similar manner about the tops of the lindens from 5.30 to 6.45 P.M. I think that in both cases they must have been migrating birds attracted by the presence of insects in unusual numbers about these trees.

" 12 Eight or ten migrating at sunset one or two circling over lindens

" 13 " " " " " " " " " "

Chaetura pelagica

1890 Mass

Aug 21 Cambridge. From 5 or 6 to 12 or 15 have passed over my garden every evening this last week. They appear a little while before sunset and invariably move southward sometimes pausing for half an hour or more to fly about the tops of the lindens. Apparently they are migrating but I do not feel sure of it.

" 22 Longwood. Many flying at a great height in no particular direction, apparently feeding. Counted twelve in one flock. Evening clear & still.

Sept. 4 Cambridge.-- Fully 20 circling about over Norton's woods and the adjacent ball ground, flying high for the most part, twittering a little, evidently feeding. Twice I saw two sail together for some distance with raised & motionless wings, as they do in early summer. *Repeatedly* a bird was seen to fly into the top of a dead tree & *try to break off a twig*! The attempt must have been made in sheer wantonness but it appeared to be earnest enough. One bird flew into the middle of a bunch of leaves, fluttered there a moment, then emerged. Finally when it was nearly too dark to see them the whole flock collected together and started off over the trees southward. Were they migrating or merely going to roost?

Massachusetts.

Chaetura pelagica.

1892.

Aug. 17 Concord. Swifts have diminished in numbers during the past week but they are still numerous Two flying at evening at a height of fully 1000 ft. over Fairhaven were perhaps migrating although their course was about E.

Aug. 24 Late in the afternoon a flock of 15 Chimney Swifts appeared over the river just above Ball's Hill, They came from the westward and at first were high in the air but presently descended and skimmed low over the meadows and water: getting their evening meal I think they were migrants but there are a few local birds still flying about the village.

Sept. 5. The Swifts also seem to have suddenly departed, At sunset last evening a dozen or more were circling over the Manse grounds but I saw only one to-day

Sept. 16. About sunset a Swift passed over us flying very high towards the E. disappearing over Ball's Hill. It was apparently a solitary bird and seemed to be migrating.

Chaetura pelagica.

Concord, Mass.
May, 1. 1393.

the afternoon.' The only arrivals noted were Chimney Swifts of which I saw a flock of twelve flying over Ball's Hill in the forenoon and another of six over the meadows in the afternoon. It is nearly certain that none were here yesterday. I heard one Bobolink to-day singing high in air over Ball's Hill & probably migrating. The Yellow-rumped & Yellow Palm Warblers were represented by only a few stragglers. ~~and~~ I noted only one Ruby-crown. A Hairy Woodpecker calling on the hill in the afternoon.

Arrival of Chimney Swifts

Concord, Mass.
Ball's Hill

1893
May 27
(No 2)

When I reached Ball's Hill this morning a perfect swarm of Swifts were flying above and around it dashing close over the tops of the oaks. I counted 22 & certainly did not get them all. Their numbers increased steadily as the day wore on until late in the afternoon there must have been between 50 & 60. Doubtless all the birds that breed within several miles were assembled here. I have repeatedly seen them here in cloudy weather in May during former years but never so many at one time if I remember rightly. There were a few Bank Swallows with them. I suspect that the blossoming oaks attract certain Dipterous insects of which the Swifts are particularly fond although ~~they~~ Ball's Hill is a favorite feeding ground of theirs at all times in cloudy weather. There were many Swallows flying low over the river meadows to-day but not a Swift among them.

Large gathering of Swifts Ball's Hill

Chaetura pelagica.

Concord, Mass.

1893. Swifts appear to be more numerous this season than they ~~June~~July 1. were last year. I hear them rumbling in the chimney of the Johnson's house making a sound like distant thunder or the rapid beat of horses' hoofs mingled with the roll of wheels across a wooden bridge. Another pair, nesting in one of the chimney's of Mr. Keyes's farm house, evidently have young as one or both of the old birds go into and from the chimney at short, regular intervals. Both of these chimneys are of the modern type with small flues. It is a pretty sight to see the Swifts drop into them with fluttering wings.

Chaetura pelagica.

Concord, Mass. Strange actions.

1893. A little before sunset this evening I saw a flock of fifteen Chimney Swifts flying in a large circle over the Derby's house acting precisely as if they were preparing to descend into one of the chimneys to roost. Unfortunately I was unable to watch them for more than a minute or less during which time they kept flying around and around. When I came out of our house a little later they had all disappeared.

July 17.

At frequent intervals last night between 9 and 11 P.M. I heard Swifts "rumbling" in our chimney. What can they have been doing? The rumbling frequently occurred repeatedly at short intervals - certainly not over half a minute, thus leading me to conclude that they were not passing out of and into the chimney but merely hovering-or something of the kind-within it. Can they have been teaching their young to fly? The night was dark and clear. I also heard this rumbling at various times through the day.

Chaetura pelagica.

Concord, Mass. Flying at night.

1893. I was restless during the night and awoke many times. At
Aug.5. about 2 A.M. (I did not look at my watch) I was surprised to hear Chimney Swifts twittering outside the window. There seemed to be a good many of them and the sound of their voices indicated that they first circled about the house several times and then went off towards the South. When I first heard the twittering there were also several birds making their peculiar rumbling in the chimney but this soon ceased and was not again repeated. The night was dark and still at the time with rain falling gently and steadily. My impression is that these Swifts were starting on migration and that several birds roosting in our chimney emerged and joined the larger throng.

Chaetura pelagica.

Concord, Mass.

1893. A good many Swifts were feeding over the meadows and

Aug.8. river at evening. A few, probably birds tied down by belated broods, still linger about the farm houses in this vicinity and I saw a pair descend into a neighbor's chimney last evening.

Aug.9. Returning from D.C.F's studio where I spent the forenoon I saw, at about 1 P.M., a flock of fully thirty Chimney Swifts high in air over the village flying in a large circle rising and falling in graceful confusion. Others were skimming about just above the trees and joining or leaving the main flock which revolved over the same spot as long as I was within sight. It looked as if they were preparing to start on migration. I heard at least one bird rumbling in our chimney this evening.

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Glendale, Berkshire Co., Mass. Descending a chimney.

1899. $2^{♂}$, $3^{♀}$, $6^{\textcircled{♂}}$. All these birds were seen at evening flying

Sept.1-15. about Mr.French's studio into one of the chimneys of which they dropped in quick succession after making a number of seemingly vain attempts to do so. Such feints are not uncommon but on these occasions the birds descended dozens of times only to sheer off just as they reached the top of the chimney.

Chaetura pelagica.

Concord, Mass.

1893. Aug.14. Two great flocks of Swifts, one containing about twenty, the other thirty birds, were flying about over the river a little before sunset this evening; one flock was near Holden's Hill, the other over the Rice Island. Neither flock changed its position or showed any tendency to drift, the birds being engaged in feeding, darting to and fro within narrow limits at an average height of forty or fifty feet. They were very silent. I think the young have all left the chimneys now as I have seen no old birds flying about the houses for two nights past. On the night of the 12th I heard one rumbling in our chimney, however,

Aug.21. Wind north, gusty and dangerous as we started from the cabin for the Buttricks', but we sailed part of the way. About 15 Swifts accompanied by as many Swallows representing all five of our New England Hirundinidae (there was but one Martin and one Eave Swallow) were flying over the Beaver Dam Rapid. At Rice Island there were fully 150 Swifts dashing about close over the water and sedge. I have never seen so many together before. It would have been easy to kill one or more at each shot by firing at random through the swarm. They reminded me of gnats despite the difference in their flight.

Chaetura pelagica.

Concord, Mass.

1893. Aug. 24. Again great numbers of Swifts at Beaver Dam and Rice Island but nowhere else a single bird. Their marked preference for these stretches of river must be connected in some way with the presence of the wild rice which in both places forms extensive beds while elsewhere it merely fringes the banks. There were four Martins with the larger flock of Swifts and Swallows of three or four species in each. The Swifts dashed about at such tremendous speed and passed or crossed one another's lines of flight so closely that it seemed wonderful that they did not occasionally come into collision. Repeatedly this afternoon, as well as on many other occasions of late, a bird flying at full speed and passing close over my head made, with its wings doubtless, a peculiar sound very like that of a humming top. Only a small proportion of the total number made this sound which, by the way, I do not recall ever hearing except at about this season. Perhaps it is produced only by the young or by adults at a certain stage of the moult when the wings are lacking a portion of the quills.

Aug. 27. On several occasions this summer when a thunder shower was coming up I have noticed Swallows and Swifts flying at a great height. Two Swifts this afternoon were wheeling about along the edge of the thunder cloud at fully 2000 ft. above the earth. They appeared to be feeding.

Chaetura pelagica.

Concord, Mass. Heavy migration.

1893. During the descent of the river and while at Ball's Hill
Sept.9. we had not seen a single Swift but at evening as we were paddling past Holden's Hill five of these birds appeared at a great height overhead and began descending and cutting about after their usual fashion. Others followed them and still others until by the end of the next four or five minutes there were fully 75 darting back and forth over the river and woods. They all came from the north, as I could plainly see by watching the sky in that direction, and evidently were migrating birds which merely made a brief halt to secure their evening meal. For the remainder of the way up the river Swifts were continually in sight either flying low and feeding or keeping on directly south at a height of 300 or 400 feet. All those which I saw after sunset were flying high and towards the South. There can be no doubt that what we witnessed was a veritable migration.

Chaetura pelagica

1894 Mass.

July 25 Concord. Visiting the log cabin at Ball's Hill for the first time since late in May I found on the hearth a Swift's nest containing four young bird only a day or two old & quite naked & blind. Two were dead & cold, the other two alive but evidently chilled & feeble although they kept up a fine, shrill squeaking very like that of young mice. The nest must have been washed down by the heavy rains of the 23rd. The glutinous secretion along its back side was water soaked and failed to give any sticky sensation when pressed between the fingers. The chimney is smoothly plastered with mortar inside. It is only about 15 ft. high and the branches of an oak stretch out directly above it.

A nest in my log cabin

1895 N. H.

June 29 Wolfeboro. Passing the hotel this evening I was surprised to see Chimney Swifts descending a tall, narrow chimney in considerable numbers. Being on my way to the depot to meet a train I could not stop long to watch them but in the course of two or three minutes I saw 28 descend into this chimney & many more were circling over it when I left. Certainly not less than 50 must have entered it that evening. What is the meaning of such a roost at the height of the breeding season? Is it composed of male birds only? Mentioning the matter to Mr. E. H. Lord he told me that in May (he was positive as to the month) 1894 at least 500 or 600 Swifts resorted nightly to roost in one of the chimneys (also a tall narrow-flued modern chimney) of the Brewster Academy building. One cold day they started a fire in the steam furnace connected with the flue. A few weeks afterwards the flue was cleaned out & three bushels of soot & dead Swifts removed. The relative bulk of birds & soot seemed to be about equal. He thinks they were killed by the coal gas but the fire was started in the morning!

Large roosts in May & June

Chāetura pelagica

1895 Conn.

Oct 17 Windsor Lock. - A small flock seen flying over the Conn. River by C. H. Allen. (Windsor Lock is on or near the Mass. line & not far from Springfield. It is the point where the N. Y. & N. H. R. R. ~~first~~ crosses the Connecticut)

Late stay in autumn

1896 Mass.

July 25 Milton. - At about ten o'clock this morning we heard a loud squeaking in the parlor fireplace at Mrs. Haywards & investigating found a Swifts nest on the hearth with four young birds about 2/3 grown & covered with pin feathers but all with their eyes tightly closed scattered about among the wood & kindlings near the nest. One was dead. The other three seemed feeble and listless. We put them in the nest and placed them on the mantle in the kitchen where the thermometer stood at about 80°. The nest had doubtless been loosened & finally washed down by a heavy rain this forenoon.

Young fall down chimney & are replaced in a basket.

" 26 The three young Swifts seemed to have gained greatly in strength & spirits this morning. We put them with the nest in a shallow open basket and lowered this down the chimney suspending it there by means of a string.

" 28 The young Swifts in the basket alive & vigorous. The old birds must be looking after them.

" 30 Our Swifts still alive & apparently doing well. Mrs. Hayward heard the old birds in the chimney several times early this morning.

These young Swifts were very noisy. ~~[illegible]~~ Whenever any one approached or moved the basket they would utter in concert a loud & prolonged chattering sound very like that of young Flickers.

1896

Apr. 22 Concord. Noted first arrival to-day twittering at sunset high in air over the cabin.

Chaetura pelagica

1896. Penobscot Bay, Maine.

Deer Island. June 20: 21: 22: 23: 24: 28: } Stinsons Neck
July 1: 2: 9 heard
" 11: 16: near Knights.

July 15 Sedgwick } Only two or three seen in each town during long drives taken
" 16 Brooksville } through the surrounding country. Evidently the Chimney Swift is a comparatively uncommon bird in this region as well as on Deer Island.

Chaetura pelagica.

Peterborough, New Hampshire.

1898. A pair nesting in the chimney of the old ~~the~~ house here

July 5 to Aug.15. at Ben Mere farm, and others seen almost every evening (as well as during cloudy days) flying about over the fields and woods. The species, however, is evidently much less numerous about Peterborough than at most localities in New England.

Chaetura pelagica

1898 Mass.

May 1 Concord. Heard one or more twittering over Ball's Hill late this afternoon. [Journ.].

N.H.

June 14-15 Wolfboro. As numerous as ever. [Journ.].

Mass.

July 2-4 Glendale (in or near), Berkshire Co. Abundant. [Journ.].

1903

June 15 & 16. New Hampshire.— About noon on the 15th as I was standing in front of Allen's house at East Dam I heard Swifts making a great outcry just around the corner of the porch. Hurrying to the spot I was astonished beyond measure to flush three of these birds from some long grass nearly under foot. They rose all together but flew off in different directions. They must have been literally on the ground for several seconds as I walked at least 20 ft. after turning the corner before seeing them. I could not imagine at the time what they were doing there but an explanation which I believe to be the real one was suggested the very next evening when I was at Wolfeboro, N.H. On this latter occasion I was standing in front of E. H. Lord's house talking with J. K. Lord when I saw two Swifts approach at a height of about 30 ft. one following the other closely. When almost directly over me they suddenly came together and, locking in what I took to be a sexual embrace, descended to the ground until within ten feet of me, whirling around very rapidly but falling no faster than an autumn leaf, twittering all the while most shrilly & loudly. On reaching the ground they fluttered & tumbled about for perhaps two seconds before separating when they flew away silently in opposite directions. They may have been fighting of course but it was my strong conviction that they were copulating although I could not trace any of the usual movements accompanying this act (they were in [illegible] together). (Compressed notes)

Copulating on wing?

Birds of Upper St. John.
Batchelder.

69. **Chætura pelasgica** (*Linn.*) *Bd.* CHIMNEY SWIFT. — At Fort Fairfield they were common, breeding both in chimneys and in hollow trees. Common in the burnt country at Grand Falls. Not many were breeding in chimneys, the people disliking to have them there.

Bull. N.O.C. 7, July, 1882, p.150

Birds within Ten Miles of Point de Monts, Can. Comeau & Merriam

51. **Chætura pelasgica.** CHIMNEY SWIFT. — Generally tolerably common, but not seen this year.

Bull. N.O.C. 7, Oct, 1882, p. 236

Last Dates Migratory Birds observed by E. D. Wintle, Fall 1885, Montreal, Can.

Sept. 5, Chimney Swift,

O. & O. XI. Mar. 1886. p. 44.

Ornithological Trip to St. Bruno, P.Q. May 25, 1885. E. D. Wintle, Montreal.

Chimney Swift, scarce.

O. & O. XI. May. 1886. p. 75

Summer Birds of Bras D'Or Region Cape Breton Id., N.S. J. Dwight, Jr.

23. *Chætura pelagica.*

Auk, 4, Jan., 1887, p.16

Summer Bds. Restigouche Valley, N.B. July, '83. J. Brittain and P. Cox, Jr.

Chætura pelagica. CHIMNEY SWIFT.—Common, nesting in trees.

Auk, VI. April, 1889. p.117

Dwight, Summer Birds of Prince Edward Island.

Chætura pelagica. CHIMNEY SWIFT. — Rather rare, and not often seen. In a country where a majority of the houses have but one chimney, and that chimney in use from one year's end to another's, it is not remarkable that the Chimney Swift still nests in its primitive manner in hollow trees, but it is remarkable how soon it takes kindly to civilization when this has advanced to the point of building houses with a spare-room chimney.

Auk X, Jan. 1893. p. [illegible]9.

Summer Birds of Sudbury, Ont.
A. H. Alberger.

423. Chimney Swallow. Common in the village.

O. & O. XV, June. 1890. p. 87

Notes on the birds of Cape Breton Island.
by Charles W. Townsend, M. D.

The following notes are added on several species previously reported for the Island.

Chætura pelagica. CHIMNEY SWIFT.— The houses outside of the large towns at Cape Breton are generally very poorly supplied with chimneys. In fact, brick chimneys are rarely seen, but small stovepipes are used. Chimney Swifts, which are common, have therefore to adapt themselves, and I was told that it is usual for them to nest in barns and sheds. At French River, close to the sea, I observed on August 22 a Swift flying in and out of a window in a small hay barn. Inside on the end wall opposite the window and close under the apex of the rafters the nest was fixed and it contained the half-grown young. The nest was a rather bulky affair, made of spruce twigs, and the glue-like substance with which the twigs were stuck together was smeared like varnish on the boards above and below the nest. Below the nest was a large pile of droppings, as if the place had been used for several years. This accumulation was added to from time to time by the young, who carefully disposed themselves so as to avoid soiling the nest. When the adult bird flew in with food, chirping loudly, there was a loud reply from the young. The old bird generally alighted on the wall below the nest, clinging in a vertical position, and later fluttered up to the edge of the nest where it fed the young. The shrill twittering of the young was almost deafening in the small hay loft. The next morning early I found both parents at the nest, one on the wall, the other sitting on the nest, spreading one wing at times, and brooding the young. Auk, XXIII. Apr., 1906. p. 174.

Summer Birds of the Cobalt Mining Region
Nipissing District, Ontario.
by Frederick C. Hubel. Auk, XXIV, Jan. 1907, p. 50.

24. **Chætura pelagica.** CHIMNEY SWIFT.— Abundant about the lakes. Many seen in Haileybury where they nest in chimneys.

Birds of Toronto, Canada,
by James H. Fleming
Part II, Land Birds.
Auk, XXIV. Jan., 1907. p. 76.

164. **Chætura pelagica.** CHIMNEY SWIFT.— Common summer resident, April 27 to August 31; earliest April 18, 1891; breeds (June 7, 1892).

Birds of Dead River Region, Me. F. H. C.

68. *Chætura pelasgica,* (Chimney Swift). Occurring in usual numbers about the houses in the farming districts.

O. & O. XI. Nov. 1886. p. 162

Summer Residents on Southwest Coast of Maine. T. H. Montgomery, Jr.

423. Chimney Swift. Uncommon. There were about four pairs at Boothbay.

O. and O. 15, Nov, 1890, p, 161

Chaetura pelagica and Antrostomus carolinensis were noted at Plymouth, N.H.

Shelburne, N.H. Aug. 8-29-1865. R. D.
Chætura pelagica. — Saw several pairs, one breeding in a chimney.

Chætura pelagica. — Not common Profile House, N.H. Aug. 1865.

Rye Beach, N.H. 1866-1885.
Chætura pelagica. — Common (see notes)

Wolfeboro, N.H. June. 17-1887.
Chaetura pelasgica — [illegible]

Breezy Point, Warren, N.H.

Chætura pelagica

1894.

June 15

June [illegible] 16 18 19 20 [illegible]

[illegible] 18 25 [illegible] 27 28 [illegible]

Three [illegible] breeding [illegible]

[illegible] Hotel. [illegible] the birds [illegible] copulate [illegible] flying [illegible] both birds held [illegible] extended [illegible]

Breezy Point, Warren, N.H.

1895. Chætura pelagica

May

28 29 30 31

June 1 [illegible] 4 5 6 7

Profile House, N.H.

Chimney Swift. Chaetura pelagica.

Arlington, Mass.

Did I tell you that Torrey and my brother saw a Chimney Swift flying about the Profile House, N.H. on the Ist of October? My latest Swifts this year were Sept. I7. Saw them almost daily in Lexington up to that date.

Walter Faxon (letter December 4, I89I).

Summer Birds of Presidential Range,
White Mts. A.P, Chadbourne

13. **Chætura pelasgica.** Chimney Swift.—On July 3, 1886, one was given to me that had been caught alive in an unused chimney of the Half-way House (altitude, 3840 feet). The men at the house had never before seen any bird like it, and during our stay we saw no more; still one or two pairs might have nested there and yet have escaped notice.

Auk, 4, April 1887. p.104

Bds. Obs. at Franconia and Bethlehem
N.H. July-August, 1874. ~~W. Faxon.~~
J. A. Allen

8. **Chætura pelagica.** Common.

Auk, V. April, 1888. p.154

Birds Obsvd. near Holderness, N.H
June 4-12, '85, and 4-11, '86. W. Faxon

13. **Chætura pelagica.** Chimney Swift.—Common.

Auk, V. April, 1888. p.149

Bds. Obs. in Franconia, N.H. June 11-21
'86, and June 4-Aug. 1, '87. W. Faxon

13. **Chætura pelagica.** Chimney Swift.—Common.

Auk, V. April, 1888. p.151

Birds Obs. at Moultonboro, N.H.
July 21-Aug. 11, 1883. F. H. Allen

Chætura pelagica.—Very common.

Auk, VI. Jan., 1889. p. 78

Birds Obs. at Bridgewater, N.H.
July 12-Sept. 4, 1883. F. H. Allen

Chætura pelagica.—Common.

Auk, VI. Jan., 1889. p. 77

Birds of Hillsboro Co. N.H. June 27, '92
Arthur M. Farmer, Amoskeag, N.H.

Chimney Swift, two were observed.

O. & O Vol.17, Sept.1892 p.136

Summer Bds, Mt. Mansfield, Vt.

17. **Chætura pelagica.** CHIMNEY SWIFT. — Common; occurs on the mountain nearly to the summit.

by Arthur H. Howell

Auk, XVIII, Oct., 1901, p. 341.

Chaetura pelasgica

Summer migration.

[illegible]

For the past eight or ten days Chimney Swifts have been passing south over our place, usually flying rather high and in little companies of from three to eight birds. I do not remember to have seen them migrating so early before.

E. Mass. 1885.

81. Chaetura pelasgica.— June $12^{\text{Con.}}$ $16^{\text{Con.}}$ July 1^{40}

Princeton & No. Rutland, Mass. June, 18 -1886.

44. Chaetura pelasgica - Abundant

Chaetura pelasgica Mass.- near Cambridge.

1886 April 23

Mass. (near Concord).

1887

May 6^{10} - 8^{10} - 9^{10} - 10^{15} - 17^{6} - 22^{6} - 23^{8} - 25^{4} - 26^{10} - 31^{10}

June 2^{10} - 4^{10} - 6^{10} - 7^{10} - 12^{10} - 16^{10} - 17^{10}

July 7^{4} - 10^{4} - 15^{2} - 23^{2} - 24^{4} - 26^{6} - 30^{10}

Aug. 1^{1} - 9^{30} - 10^{30}* - 13^{50}* - 14^{4} - 15^{6} - 17^{6}

* young chattering in chimney of Mansion

Chaetura pelasgica

Mass (Winchendon)

1887

June 24^{10} - 25^{20} - 26^{20}

Chaetura pelasgica

Mass. (Wellesley)

1888
April 28th

Chaetura pelasgica.

Chaetura pelasgica

Concord, Mass.

July 24, 1893

Swifts rumbling in the chimney of our house (the [illegible]) up to a late hour last night. This evening, a little before sunset, I noticed dropping on the hearth & found that by thrusting in my head and turning my head around I could look straight up the flue. There was a nest apparently unoccupied near the top, tufts of whitish down adhering to the sides in many places. But no birds young or old in sight.

Shortly afterward I heard a Swift rumble & looking up saw the bird clinging to the bricks like a woodpecker opp. the nest & about 6 ft below the mouth of the chimney. A little later another bird was visible directly beneath the first. Did not see either come in. One was busily engaged for some time in preening its feathers, moving its head about freely & opening & shutting its wings. At length I saw it [illegible]. It first spread its wings & then beat them rapidly for a moment making a hum like a hummer. During this performance it did not relax nor change its foothold nor did it alter its position vertically.

W

Chaetura pelasgica

tic--- Very common through-

o numbers about the villages

a n several occasions scal-

i ough this species flies

m day, it is seen in the grea

est numbers late in the afternoon and again in the early morning.

1889. Chaetura pelasgica. Wellesley, Mass.

April 30. 1 – going north. May 9. abundant. 26. nest building

S. W. Denton.

Mass. (Wellesley)

1888
April 28th

Chaetura pelasgica.

W. Middlesex Co. Mass.
June 25-30, 1889.

Chaetura pelasgica

West Townsend, Ashby, Mt. Watatic--- Very common throughout this region; seen in the greatest numbers about the villages and old farm-houses, but also observed on several occasions scaling over the top of Mt. Watatic. Although this species flies more or less freely at all times of the day, it is seen in the greatest numbers late in the afternoon and again in the early morning.

1889. Chaetura pelasgica. Wellesley, Mass.

April 30. 1 going North. May 9. abundant. 26. nest building

S. W. Denton.

Fall Migration, Bristol County, Mass.
1885. Charles H. Andros.

Sept. 13; a large number of Chimney Swifts flew over. they were the last seen of this species.

O. & O. XI. Jan. 1886. p. 2

Fall Migration, Bristol County, Mass.
1885. Charles H. Andros.

Sept. 24; a single Chimney Swift was seen this morning winging its way southward.

O. & O. XI. Jan. 1886. p. 2

Birds of Bristol County, Mass.
F. W. Andros.

Chaetura pelagica (Linn.). Chimney Swift. Summer resident, common. Breeds.

O. & O. XII. Sept. 1887 p. 139

Birds Known to Pass Breeding Season
nr. Winchendon, Mass. Wm. Brewster

21. Chætura pelagica.

Auk, V, Oct., 1888. p. 389

Bds. Obs. near Sheffield, Berkshire
Cy, Mass. June 17-26, '88. W. Faxon

13. Chætura pelagica. Chimney Swift.—Common.

Auk, VI. Jan., 1889. p. 44

**Bds. Obs. near Graylock Mt Berkshire
Co. Mass. June 28 - July 16. W. Faxon**

11. Chætura pelagica. Chimney Swift. — Common. Frequently seen flying about the summit of Graylock.

Auk, VI. April, 1889. p. 99

Chaetura pelagica

1895. Falmouth, Mass.

July 15^{1} 19^{2} 20^{1}

1901 Chaetura pelagica

June 4 Lancaster, Mass.

Swifts literally swarm about this old town. I was surprised this evening to see them pouring down a chimney of the Tyler Tavern in a perfect stream. 27 entered during the minute or two that I was able to spend watching them and as many more were circling over the chimney when I went away.

" 6. Saw a dozen or more Swifts enter a chimney of a house near the river. Others were circling over it as I continued on my way.

1901 Chaetura pelagica

Lancaster, Mass.

June 4. While driving past the Tyler Tavern this evening I was surprised to see a swarm of Swifts circling over and dropping into one of its chimneys. 27 birds descended in the course of less than two minutes & when we drove away there were nearly as many more flying about over the house.

" 14. Went to the Tyler Tavern at 7 P.M. to observe the Swifts. A few were flying about & one dropped into the chimney at 7.19. Up to 7.38 12 had entered and 5 come out again. At 7.42 - 7.49 they went in faster, sometimes as many as 5 or 6 in the course of a minute but at no time anything like the stream that poured down the chimney on the night of the 4th. The last and 47th bird entered at 7.52 P.M. It is new to me that Swifts maintain roosts of such magnitude at this season.

1901 Chaetura pelagica

Sept. 18 Lancaster, Mass.

At 6.30 a.m. saw 7 or 8 Swifts flying about near Miss Holman's. At 9.30 a.m. a great swarm was collected over the Johnson house. There must have been upwards of 200 but I could not count them accurately. They were circling over a chimney in which a number roosted last spring & acted as if about to go to roost this morning. Indeed many of them dropped nearly into the chimney but just before reaching it all turned to one or the other side. The flock kept whirling over it for ten minutes or more. Then they rose so high in air that I could not follow them distinctly & drifted off towards the W. Ten minutes later they were all back again circling & rising & dropping as before. They were rising a second time when a Pigeon Hawk suddenly appeared among them. He paid no apparent attention to them but when he darted off westward they all followed him stringing out like a long trail of smoke. Finally he turned & came back over me keeping eastward until lost to my sight the Swifts still following. The leading birds kept abreast of him & occasionally a few passed him & led the way. They seemed to me to be following him merely for fun as they kept silent & did not attempt to molest or worrying him. A few minutes later the Swifts all came back & again disappeared towards the W.

Sharon, Mass.

ords for Massachusetts.— **Chætura pelagica.** Chimney
hree in Sharon, Mass., on Oct. 12, 1907, which is appar-
ate for the State. One of them flew almost directly over-
erfectly satisfactory identification.

Auk 26, Apr-1909, p. 198.

Connecticut, June, 1893.

Chaetura pelagica

June 3^{20} 4^{50} Fairfield

" 5^{12} 6^{10} 7^{5} 8^{3} 9^{12} 10^{10}. 11^{6}
12^{8} 13^{12} 14^{15} 15^{12} 16^{12} 17^{4} } Saybrook
18^{6} 19^{5} 20^{6}

21^{12} 22^{15} 23^{30} 24^{16} 25^{8} Andover

Decidedly more numerous in Conn. than it is in E. Mass. owing, probably, to the greater number of old fashioned houses with large chimneys which the former State now furnishes. At Andover Swifts in the chimney which passed through my chamber molested its [illegible] [illegible] during the [illegible] [illegible] [illegible] visited June 22. [illegible] I also found them [illegible] in a barn in the [illegible].

Birds observed in Naval Hospital
Grounds, Brooklyn, G. H. Coues

10. **Chætura pelagica.** CHIMNEY SWALLOW. — Common; breeds.

Bull. N. O. C. 4, Jan., 1879, p. 31

Birds of the Adirondack Region.
C. H. Merriam.

99. **Chætura pelasgica** (*Linn.*) *Baird.* CHIMNEY SWIFT.—Common summer resident.

Bull. N. O. C. 6, Oct, 1881, p. 231

Arrivals of Mig'y Birds, Spring-1886,
Central Park, N. Y. City. A. G. Paine, Jr.

May 4, *Chætura pelagica,* (423). Chimney Swift.

O. & O. XI. July. 1886. p. 109

Notes on the Spring Migration of Birds in the Northern Adirondacks [Axton], New York [1901].
May 30 to June 5.

Chimney Swift. Not common.

E. A. Sterling, Brooklyn, Pa.
Auk, XIX, July, 1902, p. 299.

Albinism and Melanism in North American Birds. Ruthven Deane.

The only instance of albinism occurring in the Chimney-Swift, which has come to my notice, is a fine pure white specimen in the collection of Mr. Jesse Warren of West Newton, Mass.

Bull. N.O.C. 4, Jan., 1879, p.29

The Singing of Birds. E. P. Bicknell.

Chætura pelasgica. CHIMNEY SWIFT.

The rapidly accelerated chatter which the Swift runs off so airily while on the wing, accompanies its flight through most of the summer—in fact as long as the birds remain common. This may be from early August till well on towards the end of the month.

Late in the stay of the species I have sometimes heard their full notes while watching small companies of the birds tarrying at dusk over low grounds and meadows to join the Swallows insect-hunting.

In the summer the Chimney Swifts are disposed to be liveliest late in the day, and the warm evenings are enlivened by their nervously rapid twittering as in wisps of two or three or more they race with astonishing velocity through the air.

But they are quickly affected by a fall of temperature, and in suddenly cool evenings, chiefly in late summer, are to be seen flying silently about in marked contrast with their usual noisy demeanor. Auk, 2, July, 1885. p. 257.

Highlands, North Carolina. Chaetura pelagica.

1885

Under date of July 7th Mr. Chas. L. Boynton of Highlands writes: "I have found a Chimney Swift's nest attached to the wall of a building (a lumber kiln) on the inside near the peak of the roof."

Auk, XII, July, 1895, p. 314.

Two Unique Nesting-sites in and about Camp Buildings in Hamilton Co., New York.

On August 3, 1894, I found a Chimney Swift's nest placed just under the ridge pole of an old log barn and against the side of one of the logs of which it was constructed. Such a position was new to me as I had always thought they built either in chimneys or in hollow trees, and it was additionally interesting from the fact that it was within a foot of an enormous hornet's nest. The five young birds which were nearly fledged were clinging to the bark of the logs in the immediate vicinity and seemed to get on much better with the hornets than I did.—F. H. Kennard, *Brookline, Mass.*

Birds Tioga Co, N.Y. Alden Loring.

351. Chimney Swift. Common. Breeds. Arrives here from the south in flocks. They are a peculiar bird and light only in chimneys. The manner of getting materials for building is as follows: They fly along until they get to a tree with a dead top, when they grab a twig and wrench and twist until they break it off. This is conveyed to some chimney that is not used, and is glued to the bricks with a glutinized substance which they make. The eggs, usually four in number, are of a pure white color, and usually measure 25-36 in. by 1-2 in.

O. & O. XV, June, 1890, p.85

Brief Notes.

On October 2 I received of P. R. Davidson, of this city, a beautiful nest of the Chimney Swift.

It was taken from an empty freight car that had been side-tracked for some time. It is made of sticks glued together (as all people know) with the spit of the bird; it is shaped like a half cup and is 1¼ inches deep. *W. E. Mulliken.*

Grand Rapids, Mich.

O. & O Vol. 17, Oct. 1892 p. 159

Nesting Dates – Chimney Swift.

June 10 – 30

South Yarmouth – Mass.

June 29 – 1896 – set. 5 Eggs – three fourths incubated.
July 3rd 1896. " 3 " fresh.
June 8th 1897. " 3 " not taken – incubation unknown
July 1st. 1897 " 5 " 3 eggs – three fourths. inc 2 – sterile
July. 1st 1897. " 3 " not taken – inc. unknown. (a full set)
July 6th 1899 4 young birds. about 3 days old
" 6th 1899 3 " " " 2 " "
June 23rd 1902. set. 5 eggs – fresh.
" 24th 1902 " 5 " not taken – incubation unknown
" 26th 1902 " 4 " " " " "

Ponkapog Mass.

June 17th 1898. 2 fresh eggs.

July. 4th 1903 – nest ready for eggs. not examined until 19th when nest held 3 eggs.

See – Nidologist. Vol III. no 12. Aug 1896. (Swift by J. H. Bowles)

Brookline Mass.

July 3rd 1886 – nest 2 fresh egg – – J. H. Kennard.

F. B. McKechnie

Mass. (Concord) Chaetura pelagica ✓

1886

June 7 Every morning at dawn when the Robins begin their clamor I am awakened by two Chimney Swifts leaving the chimney which opens into the room by an old-fashioned fire place. They do not make any vocal sounds but their wings produce a dull yet loud rumble very like the sound of distant thunder or perhaps more like wheels passing over a wooden bridge. A few particles of soot invariably fall as the birds go out. Two old birds have come down and out into the room.

Mass. (Concord) Chaetura pelagica.

1887 Copulating on wing.

June 7 Shortly after sunset saw a pair of Swifts flying high over the river close with one another and come whirling slowly down nearly to the water before separating, making a low twitter as they descended. I was within thirty yard and saw them distinctly enough to make sure that they were copulating, not fighting.

Chaetura pelasgica

Concord, Mass.
July 11. 1893

At frequent intervals after dark and up to 11 P.M. I heard Swifts rumbling in the chimney of the Johnson's house. The sound was much like that of wheels rolling rapidly across a bridge or like distant thunder. Each rumble was of short duration. At Andover, Conn., about June 23 I heard this short rumble repeated every few seconds or minutes during the entire night. What can the Swifts be doing? I do not think they were passing in & out of the chimney for the rumble was too short.

On the 10th July a nest fell down the chimney of the [illegible] house at Milton. It held 3 young which were perfectly naked & blind & probably only 3 or 4 days old. Yet they clung to the nest with their feet so tenaciously that by lifting either one lifted the nest also. They make a low squeaking sound.

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a dwelling house near here in which was a chimney that had been occupied for many years during the breeding season by several pairs of Swifts. Before their return that season, a new house with an entirely different arrangement of chimneys had been erected in place of the one burned. June 12, I was upon the roof of the new house and was much interested in the movements of about a hundred Swifts which were in the vicinity. Almost continuously a few of them would fly about the chimneys giving them a critical examination, then favoring me with an equally close inspection, fly away. These peculiar movements were continued for about one-half hour, when the entire flock passed out of sight. Returning again in two hours they repeated their previous actions.

In the town of Woodstock is a woolen mill which has been idle for several years. Connected with the mill is an immense chimney in which countless numbers of Swifts find a home during their sojourn here, and rear their young. Good judges say there are thousands of them. This number does not seem to me an exaggeration, for I have seen them when they, literally, poured out, and again poured in, fairly making a cloud about the top of the chimney. It was a most interesting sight.

By the last week in August, the Swifts, and different species of Swallows, have departed for the South. C. O. Tracy. Taftsville, Vt.

O.&O. X. May. 1885. p. 71

Curious Habit of the Chimney Swift.

C. E. HOYLE.

In studying the habits of the Chimney Swift (*Chaetura pelagica*) I have noticed a very peculiar one that I have never seen recorded. Thinking that it would be of interest to the readers of the O. & O. I will describe it.

The Chimney Swift is a very close incubator and has to be forcibly disturbed before it will leave its eggs. I have noticed that almost invariably upon being so disturbed they would drop one or two feet below the nest, to the side of the chimney, and after getting firmly fastened, they would slowly raise their wings over their backs until the tips almost touched, and then suddenly jump or spring backward and upwards, at the same time beating the *back* of their wings against the opposite side of the chimney, producing a heavy muffled sound, They repeat this until as near the top of the chimney as they dare come when they again drop and repeat as before. The way I explained it was, that it was an attempt to terrify the disturber of its home. O & O. XIII. Nov. 1888 p. 164

Chaetura pelasgica

Concord, Mass.
July 11. 1893

At frequent intervals after dark and up to 11 P.M. I heard Swifts rumbling in the chimney of the Tolmans' house. The sound was much like that of wheels rolling rapidly across a bridge or like distant thunder. Each rumble was of short duration. At Andover, Mass., about June 23 I heard this short [illegible]

CHIMNEY SWIFT, *Chætura pelasgica*). Abundant Summer resident. Arrives May 1 to 8. Breeds, nests in chimneys. The nest is a curious affair made of twigs cemented together with saliva, by which it is also attached to the chimney. A very active and industrious species, destroying large numbers of insects, and easily distinguished from the other Swallows by its sooty-brown color, short tail, short quick stroke of the wings, and rapid flight. In March, 1884, fire consumed a dwelling house near here in which was a chimney that had been occupied for many years during the breeding season by several pairs of Swifts. Before their return that season, a new house with an entirely different arrangement of chimneys had been erected in place of the one burned. June 12, I was upon the roof of the new house and was much interested in the movements of about a hundred Swifts which were in the vicinity. Almost continuously a few of them would fly about the chimneys giving them a critical examination, then favoring me with an equally close inspection, fly away. These peculiar movements were continued for about one-half hour, when the entire flock passed out of sight. Returning again in two hours they repeated their previous actions.

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O.&O. X. May.1885. p.71

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C. E. HOYLE.

In studying the habits of the Chimney Swift (*Chaetura pelagica*) I have noticed a very peculiar one that I have never seen recorded. Thinking that it would be of interest to the readers of the O. & O. I will describe it.

The Chimney Swift is a very close incubator and has to be forcibly disturbed before it will leave its eggs. I have noticed that almost invariably upon being so disturbed they would drop one or two feet below the nest, to the side of the chimney, and after getting firmly fastened, they would slowly raise their wings over their backs until the tips almost touched, and then suddenly jump or spring backward and upwards, at the same time beating the *back* of their wings against the opposite side of the chimney, producing a heavy muffled sound, They repeat this until as near the top of the chimney as they dare come when they again drop and repeat as before. The way I explained it was, that it was an attempt to terrify the disturber of its home. O. & O. XIII. Nov. 1888 p.164

Waverley, Mass.
May 9, 1890

LETTER OF WALTER FAXON.

You remember our talking about the flight of the Chimney Swallows last summer? I have always thought they moved the wings alternately. But, watching them lately--by Jove!-- I am more and more uncertain about it. At times it seems so, and then I think it is all an optical illusion. I wish you could decide the matter, for, if true it seems to be a remarkable method of aerial locomotion, and, a priori, most improbable. You remember that Miss Merriam felt sure enough of it to go into print, and I found this the other day anent the English Swift in Richard Jefferson's Note Books (quoted in Besant's "Eulogy of R.J." page 177):--"The first (Swift) was flying low down against the wind; seemed to progress from tip to tip of wing, alternately throwing himself along, now one tip downwards, now the other, like hand-over-hand swimming." Now it sometimes seems to me as if this appearance came merely from the rapid changes in the transverse plane of the bird's body in its swift and erratic course, not from an actual alternate stroke of the wings. What think you?

Chætura pelasgica ("Rowing" flight)

Waverley, Mass.

The only way that I know to settle the question in regard to the Chimney Swift's flight is by close observation through the opera-glasses. I am now convinced that the flight is normal--both wings acting together. My test is to get a bird head or tail on. In such cases the wing-strokes are invariably together. It is only in profile view that the wings appear to flap alternately. I think I can see the reason for this:-- In side view, through the foreshortening of the alar extent of the bird, the tip of the near wing has to describe (to the eye) a larger arc than the off wing does during the same time, or(which is the same thing) the off wing moves(to the eye) slower than the nigh wing. This produces the optical effect of a cross or reverse motion of the two wings. In birds with slower wing-stroke the eye can follow the synchronium of the strokes even in side view.--(Letter of W. Faxon, May12,1890)

Wellesley Hills. Apl. 25. '91.

My dear Brewster:

I have been here since the 13th and am gradually learning how the land lies. As I was crossing the river meadows just now, on my return from Doublet Hill, I saw a flock of 42 swifts (as I counted them) flying in close order (not straggling, I mean) and in a straight (northerly) course. When I got to the Falls I found a flock circling about over the centre

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Auk, XIV, Apr., 1897, pp. 217-8.

How the Chimney Swift secures Twigs for its Nest. — Among some of the beautiful drawings of birds done by Mr. L. A. Fuertes, and submitted to my approval by the Messrs. Macmillan of New York, with reference to their publication in a work for which I am partly responsible, there was one which I 'held up' for further consideration. This represented a Chimney Swift in the act of snapping off a bit of twig with its feet, like a hawk seizing its prey. We have always supposed the bird secured the object with its beak, as it dashed past on wing at full speed; or at any rate that has been my own belief for more years than I can remember. But Mr. Fuertes vouched for the correctness of his representation from actual observation. The question being thus raised, I set it forth recently in a query inserted in one of our popular periodicals,[1] asking for information. I have received a number of replies, mostly corroborating the traditional belief, on what purports to be sufficient observation of the bird in the act. But Mr. Fuertes is supported in his view by Mr. Frank J. Birtwell, of Dorchester, Mass., from whose letter I quote: "In 1894 I spent the summer at Yarmouth, Nova Scotia, where the Swift is common, nesting in unused chimneys of the village. The bird flies to a tree, usually a spruce, and alights on a dead twig, her weight or the action of her wings snapping it off. She then carries it off in her feet. Last May 23d a Swift flew to a willow near where I was standing, and snapped off a dead twig in the same manner." This is precisely the performance which Mr. Fuertes's drawing represents. — Elliott Coues, *Washington, D. C.*

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of the village, just above the tops of the trees. It may have been the same flock, for aught I know. It was impossible to count the birds, but there were not less than 50, I am confident. I went into a grocery, and on coming out stopped to look at the swifts, still circling overhead. Presently I observed that they seemed to be drawing nearer and nearer to a certain chimney, and in a minute more into it they went in a continuous stream — all but four of them. They continued to circle about, every now and then approaching the chimney, but as often shying off. At ~~last~~ last three of them dropped into the chimney together, leaving one outside. He flew round and round, and after several false approaches tumbled in. A plain case, I called it, of a diurnal migration brought to a close for the night. What do you think? It was five minutes past four. I saw my first swifts (2 birds) on the 23d.

Other arrivals with me have

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been Barn swallow 17th, Thrasher✓ 20th✓ (daily since and rather common), Chewink✓ 22d, Black-and-white creeper✓ 22d✓ (daily since), Spotted sandpiper 23d, Solitary vireo 23d✓, Black-throated green 23d✓. What weather we have had. Cherry-trees in full bloom to-day in a snow storm. They were in bloom Apl. 25, '89, I see on looking back.

I am hoping to see you here, at Mr. Chamberlin's, off Walnut St. near corner Washington St. the first house on a new lane, built up only on the upper side — just back of the little Queen Anne School house

Yours sincerely, Bradford Torrey.

Wellesley Hills
2 May '91.

My dear Brewster:

I am glad to know that the Swift matter is of interest to you as well as to myself. Last night (and again tonight) a flock went into the same chimney in the same way. Last night I felt certain there were more than 200. Tonight there seemed to be a smaller number, perhaps not more

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100. They dropped in a little after seven. On the 25th ult., as I think I wrote you, the birds went in at *four* o'clock, a fact which largely determined my opinion that they were birds actually migrating. A colored woman who stood near me last night told me that they used this particular chimney every year and *all summer*! — only their numbers were much greater later in the season. Can this be possible? As you are coming over soon I hope you will plan to see it. At 6.45 tonight only two or three swifts were to be seen, but others very soon began to come (I don't know from where) and the number rapidly increased till, as I say, there must have been a hundred, more or less. I am at home any day except Tuesday, but please send me word of your coming that I may not be out

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on a jaunt.

Yesterday I saw an black-throated blue warbler (is it too early?) and today my first golden warbler, parula, chestnut-side, and white-eyed vireo.

Sincerely yours,

Bradford Torrey.

I should have said that I hadn't been down to the Falls (in the evening) since Apl. 28 till last night. I hear of a partially white robin that is to be seen "every morning" at the corner of Inman and Harvard Sts, Cambridge.

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The Chimney Swift.

The ancient village of Bernadotte, surrounded on three sides with overhanging, vine-clad hills, and the beautiful little river, "The Spoon," flowing at its feet, has always been a favorite resort for the Chimney Swifts, the low houses, with their old-fashioned, wide-mouthed chimneys, unused in the summer months, affording them just the site desired for a nesting-place. In these old chimneys scores of them nest every summer.

After a somewhat hazardous climb to the top of one of these chimneys in the month of June, and after my vision had become somewhat accustomed to the gloom, I could discern a dozen or more nests, arranged around the sides of the chimney wall, at a depth of eight or ten feet from the top. The dusky females could scarcely be distinguished from the dark, sooty surroundings.

Frightening them from off the nests, a strange phenomenon would be witnessed: dropping a short distance below the nest they would distend the wings, and after the manner of a bumblebee on a window-pane, come upwards with a buzzing, roaring sound, until near the top, then dropping back again repeat the process probably several times before they would rush past me out of the chimney.

Was this strange performance on the part of the Swifts enacted in the hope of frightening me away from the outlet of the chimney, or can they not make their exit in any other manner?

Some writers have thought that the Swifts feed their young at intervals during the night. Anyone who has slept in close proximity to a chimney full of young Swifts, and heard their cries and chatterings at intervals all through the night, would believe this theory plausible, the feeding being done, of course, by regurgitation. This noisy habit of the young birds becomes very obnoxious to some persons; so much so that summary means are sometimes resorted to, to get rid of them. The hotel building in the village afore mentioned had an old-fashioned, great fireplace chimney. In its roomy recesses scores of Swifts brooded every summer. The landlady, a fussy, nervous body, was very much annoyed by their noisy demonstrations during the night time. Determining to get rid of them, she took a straw tick and, emptying its contents into the wide fireplace, she set it on fire. This did the work for the baby Swifts, but the heartless woman was punished for her cruelty. The stench that arose from the half-roasted bodies of the birds was so great that for many days the building was almost uninhabitable.

In the dusk of the evening, just before retiring for the night, the Swifts will descend to the streets, and skim rapidly about close to the ground, getting a supper. I have seen the village boys, armed with long cane fishing-poles, station themselves on either side of the street, and vainly try to hit them as they would flit rapidly by. The birds appeared to take but little notice of the efforts of the boys, and it seemed inevitable that some of them would be killed. But the blows, seemingly without effort on the part of the Swifts, would be dexterously avoided, and by their continually returning and circling over the boys' heads, they appeared to enjoy the sport nearly as much as did the gamins, and their joyous twitterings seemed to say to them, "hit me if you can!"

Swallow trees, where hundreds of these birds would congregrate to roost at night, have been described by observers from various parts of the country. Two or three years ago I had the good fortune to discover one of these novel resorts of the *Chætura pelagica*. In the dusk of the evening I was riding along through some heavy timber on the river road four miles below the village. My attention was suddenly attracted by the great number of Swifts that were flying rapidly about in circles. After observing them for some moments, I presently saw that their lines converged towards a large sycamore that stood at the edge of the woods a little distance away. It was about eighteen feet in circumference, and at a height of about fifty feet had been broken squarely off, presenting much the appearance of a factory chimney, the cavity extending clear down to the ground. Into this opening the birds were settling by scores. Hunting up a heavy club I approached the tree and dealt it a resounding whack. The roar produced by the Swifts rushing out of the tree could be likened to nothing but heavy thunder. The air, too, was black with the dusky birds, rushing, circling, gyrating swiftly among the trees; their rapidly uttered notes of *tsip*, *tsip*, *tsip*, *tsee*, *tsee* was almost deafening, though not unpleasant to the ear. In a few moments they were again dropping rapidly into the hollow cavity of the tree.

No bird produces a more singular nest than does the Swift. It is formed entirely of very small twigs, which are broken from the limbs while the bird is on the wing. These twigs are cemented together by a glutinous saliva from the bird's mouth, and the whole inside of the nest is thickly coated with the same material. No soft lining, whatever, is used, and the nest in the form of a crescent is attached to one side of the wall. The usual number of eggs is four, but I have often observed six in a nest. The young birds have a habit of leaving the nest sometimes a week before they are able to fly and cling to the sides of the chimney, where they are fed by the parents till able to take to the wing.

W. S. Strode, M.D.

Bernadotte, Ill.

O. & O. Vol.17, Feb.1892 p. 28-29

THE AFFINITIES OF CHÆTURA.

BY FREDERIC A. LUCAS.

For a long time the Swifts have been debarred from the society of passerine birds and made to associate with those contained in that avian waste basket, termed the order Picariæ. Of late, however, several ornithologists, notably Mr. Sharpe and Dr. Parker, have advanced a plea for their reinstatement in the order Passeres. Latest of these is Dr. Shufeldt who reaches the conclusion* that "the Swifts are essentially modified Swallows, and, as the family Cypselidæ, they belong, in the order Passeres, next to that group."

Notwithstanding the evident care of Dr. Shufeldt's work I must confess myself as unconvinced by the evidence he brings forward and will briefly review the case of *Chætura* as a plea for the continued separation of Swifts and Swallows and the retention of the first named family near the Hummingbirds. I am well aware of the risk I run in opposing my own slight knowledge of the subject to the results of Dr. Shufeldt's more extended studies, and it is with still greater diffidence that I venture to disagree with so distinguished a morphologist as Dr. Parker. Nevertheless, until still more evidence to the contrary is adduced, I will hold fast to Huxley's union of Hummingbirds and Swifts. As for the Caprimulgidæ, there are few, I think, who will object to their

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* Contribution to the Comparative Osteology of the Trochilidæ, Caprimulgidæ, and Cypselidæ. Proc. Zoöl. Soc. London, Dec. 1 1885.

being placed in an order by themselves. They are a most attractive group of birds for study, and all that I have examined or seen figured offer good cranial generic characters, which is more than can be said for most birds. In the ensuing comparisons *Trochilus* may be construed as *T. colubris*, while *Chelidon* stands for *C. erythrogaster*, this bird having been chosen simply because its name is a little less formidable than that of most Swallows, and not from any peculiarity of its skeleton.

Before taking up the more salient structural characters, it may be well to say that, viewed in profile, the skull of *Chætura* is very suggestive of *Chordeiles*, while that of *Chelidon* unmistakably resembles that of a Flycatcher. The sphenoidal rostrum of *Chætura* is broad, the palatines are separated from one another, and the pterygoids are in close proximity to the basi-temporal region,* all characters wherein *Chætura* agrees with *Trochilus* and differs from *Chelidon*. This bird has the rostrum narrow, the palatines applied to each other posteriorly, and the pterygoids standing well out from the basi-temporal region, as in the higher Passerines. In *Chætura* the curiously expanded end of the vomer abuts on the maxillo-palatines, with which in young birds it is intimately connected. While this is wholly unlike the sharp-pointed, anteriorly free, vomer of *Trochilus*, and more nearly resembles the typically passerine vomer of *Chelidon*, yet the vomer of *Chelidon* is quite free from the maxillo-palatines, although it overlies them for its entire length. Now, among the Goatsuckers, *Chordeiles* has a slender, pointed vomer, which at first rests upon and later in life coalesces with the united maxillo-palatines, while in *Antrostomus*, and to a less extent in *Nyctidromus*, the vomer is broad and at its free extremity articulates with the maxillo-palatines. Assuredly there is an interesting suggestion of relationship between *Chætura* and the Goatsuckers, and a study of the embryology of the former bird would undoubtedly yield good results. The maxillo-palatines of *Antrostomus* terminate in recurved points which bear a certain resemblance to the slender, curved maxillo-palatines of *Chætura*. In *Chelidon* these bones are expanded at their free extremities, these expansions having the

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*Perhaps I over estimatethe importance of this last character, but it is a pronounced feature of many 'Picariæ,' notably of the Woodpeckers and Goatsuckers, less so of the Cuckoos.

Auk, XIII, Jan., 1896, pp. 82-83.

The Deltoid Muscle in the Swifts.—In examining a number of Swifts recently I was struck with the fact that our common Chimney Swift (*Chætura pelagica*) lacks the deltoid muscle. This is interesting as being another instance of the specialization of the Swifts along various lines, and also as showing the structural variation among different members of the group. In *Macropteryx* the deltoid is well-developed and arises from two heads as in the Passeres. In *Cypseloides, Micropus, Collocalia*, and *Tachornis*, the deltoid is single and reduced in size, being proportionally smallest in *Tachornis*. Finally, as stated above, the deltoid is quite absent in *Chætura pelagica*, this being a step beyond what is found among the Hummingbirds, where the deltoid is present though small. It would be interesting to know if other members of the genus *Chætura* lack the deltoid, and also what is the condition of this muscle in *Hemiprocne*.

Dr. Shufeldt's figure of the wing muscles of *Chætura* (Linn. Soc. Journ. Zool. XX, pl. 22, fig. 29) shows that he too found this muscle absent, although nothing is said about it in the text.

I would be extremely grateful to any one for alcoholic specimens of *Hemiprocne* or any species of *Chætura* save *pelagica*.—F. A. LUCAS, *Washington, D. C.*

A CHIMNEY SWIFT impaled on the point of a lightning rod, caused, no doubt, "by his headlong plunge down to his nest."

O. & O. VIII, Dec. 1883. p. 96.
F. H. Carpenter, Rehoboth, Mass.

CHIMNEY SWALLOWS. The janitor of the block in which my office is located, yesterday brought me a fine pair of Chimney Swallows, which he captured in the "dust box" in the basement of the building. The place where they were found is 160 feet from the top of the chimney—and the birds must have been there some time, as they were very weak and made no resistance when captured. They are very tame, and although I have placed them on the window sill several times, they have come back into the building, and seem perfectly satisfied to remain.—*Fletcher M. Noe, Indianapolis, Ind.* O. & O. IX. Aug. 1884. p. 104

Objectionable Names of Birds .... Ridgway.

The common Chimney Swift is called *Chætura pelagica*. The latter term implies a pelagic habitat, and is peculiarly appropriate when applied to the Stormy Petrel, or other Sea-birds. But who ever heard of the Chimney Swift occurring at sea except when driven there by a gale?

Bull. N.O.C. 5, Jan., 1880, p. 37

1758. *Questions about Chimney Swifts.* By W. E. Saunders. *Ibid.*, May 2, p. 295.—Migration. For. & Stream. Vol. 32

The Oologist. 1603. *Nesting of a Pair of Chimney Swifts.* By W. N. C[lute]. *Ibid.*, p. 75. Auk, VII. Jan. 1890. p. 84.

890. *Chimney Swallows.* By A. B. F. *Ibid.*, p. 303. For. & Stream. XXII

Vol. 32. June 13, p. 420 1773. *Chimney Swallows.* By J. S. C. *Ibid.*—Migrations. For. & Stream. ~~Vol.~~

alnorum

Massachusetts.

Empidonax p. traillii.

1892.

May 28. *Concord*. There was also a Flycatcher which I could not see very distinctly on account of the now dense foliage but which I at once decided to be a Traills' Flycatcher although he was perfectly silent and very tame - two qualities not often to be noted with this species. He flitted from tree to tree as I advanced keeping only ten or twelve yards ahead of me and hiding in the foliage whenever I passed him too closely, at other times choosing dead branches to perch upon. He looked and acted precisely like a Least Flycatcher save that he was obviously larger and more olivaceous and I *thought* that he flirted his tail oftener and more decidedly the movement being similar to that of the Phoebe but much quicker and more nervous as well as less pronounced. At about noon as I was sitting in the door of my cabin a commotion arose among the small birds in the river shrubbery, caused, probably, by the presence of a snake numbers of which have been driven out of the meadows by the flood. Among the other excited bird voices I quickly heard the *pip, pip* of Traills' Flycatcher and presently a second bird of the same species answered from farther along the shore the two calling alternately for several minutes but neither giving the harsh *qui-witchy*. I afterwards had a good view of both and saw that one was much more olivaceous than the other.

Empidonax p. traillii.

Concord, Mass.
May, 23. 1893.

afterwards. The Traill's Flycatcher was very shy. I saw it first in a pine in the pasture sitting erect on a dead branch & identified it at once by the aid of my glass. It flew before I could get at all near & went into dense oak scrub where it called *pip* at intervals & once gave the q'wichy note but I did not see it again.

Traill's Flycatcher

Empidonax traillii alnorum

1894

Traill's Flycatcher.

E. Lexington
~~Arlington~~, Mass.

I strongly suspect that Traill's Flycatcher breeds here. You perhaps remember that a few years ago I found in full song in Purgatory Swamp, Dedham, on the 23d and the 28th of June--both times in the same spot. What was my surprise to find one this year in just the same place about the end of May. Further, on the 3rd of this month I discovered one, in East Lexington in an ideal breeding-place (alder and willow-lined banks of Mill Brook). Of course I supposed him to be a transient, but there he has stayed ever since and is still singing in the same place. By the grossest piece of bad fortune the land is owned by a two-legged brute with a dog, big stick, and a foul mouth--perfectly insane in his unreasonableness. We are cut off from a chance to search for the nest.

Walter Faxon (letter June II, I894).

Empidonax traillii alnorum

1896. **Penobscot Bay, Maine.**

~~1896.~~ __Deer Island__. June 20^{2}_{*} 21^{1}_{*} 22^{1}_{*} 23^{1}_{*} 24^{1}_{*} 25^{1}_{*} 26^{1}_{*} 27^{1} 28^{1} } Stimson's Neck
July $1^{\text{hd}}_{\text{note}}$ 2^{do} 3^{do} 4^{do} 5^{3} 6^{2} 7^{1}_{*} 8^{1}_{*} 9^{1}_{*} 10^{1}_{*} 11^{1}_{*} 12^{1}_{*} 13^{1}_{*} 14^{1}_{*} 17^{1}_{*} }
" 18. One calling in alders near steamer wharf at Green's Landing.

__Sheep Island__. June 23 $^{3 \text{ birds}, 1 \text{ pair}}_{\text{with nest } 4 \text{ fr. eggs.}}$

__Isle au Haut__. July 8. Three heard in alder thickets near the shore.

__Marshall Island__. July 9 Two in alder thicket near shore

__Little Deer Island__ July 11. Two in alders.

__Sedgwick__ July 15^{1}
__Brooksville__ " 16^{1}

__Sheep Island__, June 23. Nest 4 fresh eggs, 2 ft. above ground in dense thicket of wild raspberry bushes at foot of ledge in small opening surrounded by young spruces. Birds flitting about near at hand but silent & shy.

__Deer Island__, June 24. For the last three evenings I have heard a bird calling __pip__ very late, almost up to the time when the Swainson's Thrushes ceased piping. After they had ceased to-night I heard what must be the __flight song__ of Traill's Flycatcher, __quee__-__quee__-__quee__-quee-__quee__-pip-__quee__ the notes given rapidly but yet halting in their delivery, the tone very harsh & guttural, the only musical note the __pip__. Several of the notes were exceedingly like the Phoebe's. I did not see the bird (it was too dark) but he was evidently flying over the open field in front of our house.

Birds of Upper St. John.
Batchelder.

65. **Empidonax traillii** (*Aud.*) *Bd.* TRAILL'S FLYCATCHER. — Not common at Grand Falls. They were to be found mostly where there were scattered dead trees. We did not find it at Fort Fairfield. Mr. H. A. Purdie informs me that it was not uncommon at Houlton in June, 1878.

Bull. N.O.C. 7, July, 1882, p.149

Addendum to List of Birds
Occurring within Ten miles of
Point de Monts, Quebec, Canada.
C. Hart Merriam.

153. **Empidonax trailli.**—June 7. ♀. 1883.

Bull. N.O.C. 8, Oct. 1883, p. 244.

Summer Birds of Bras D'Or Region
Cape Breton Id., N.S. J. Dwight, Jr.

Empidonax

26. *E. pusillus traillii.*

Auk, 4, Jan., 1887, p.16

Dwight, Summer Birds of
Prince Edward Island.

Empidonax pusillus traillii. TRAILL'S FLYCATCHER. — A few at Tignish in their favorite haunts, the alders, were the only ones met with. It is likely that both this species and the preceding are in some other localities more abundant than my observations would indicate.

Auk X, Jan. 1893. p.10

Birds of Toronto, Canada,
by James H. Fleming.
Part II, Land Birds.
Auk, XXIV, Jan, 1907, p.77.

172. **Empidonax traillii alnorum.** ALDER FLYCATCHER.— Rare spring migrant, May 13 to June 5; earliest spring record April 18, 1906; one seen September 22, 1906.

Birds of Dead River Region, Me. F. H. C.

65. *Empidonax pusillus trailli*, (Traill's Flycatcher). A few specimens were seen near New Vineyard and Kingfield. The finding of their nests was an event for which I must, like a certain ballad hero, say "better luck next time."

O. & O. XI. Nov. 1886. p. 162

Bds. Obs. in Franconia, N.H. June 11-21 '86, and June 4-Aug. 1, '87, W. Faxon

21. Empidonax pusillus traillii. TRAILL'S FLYCATCHER. — Common, especially among the alders along the water courses.

Auk, V. April, 1888. p.151

Bds. Obs. at Franconia and Bethlehem N.H. July-August, 1874. ~~W. Faxon~~.
J. A. Allen.

14. Empidonax pusillus traillii. Common.

Auk, V. April, 1888. p.154

Birds Obs. at Moultonboro, N.H. July 21-Aug. 11, 1883. F. H. Allen

Empidonax pusillus traillii.—A few seen.

Auk, VI. Jan., 1889. p. 78

[illegible] Point, Warren, N.H.

[illegible] traillii

1894

June 16 $\frac{2}{x}$ 17 $\frac{1}{x}$ 18 $\frac{1}{x}$ 19 $\frac{3}{x}$ [illegible] 20 $\frac{2}{x}$ [illegible]

21 $\frac{2}{x}$ 22 $\frac{1}{x}$ 23 $\frac{6}{x}$ 24 $\frac{3}{x}$ 25 $\frac{5}{x}$

26 $\frac{1}{x}$ 27 [illegible] 28 [illegible] 29 $\frac{2}{x}$ 30 $\frac{1}{x}$

[illegible] Quait, [illegible]

Breezy Point, Warren, N.H.

1895. [illegible] traillii

[illegible]

[illegible]

June [illegible]

Summer Bds, Mt. Mansfield, Vt.

24. **Empidonax traillii alnorum.** ALDER FLYCATCHER. — Apparently rare, as I saw but two or three, these in a wet scrubby pasture at the foot of the mountain; one specimen was secured. Their notes are not loud, but are recognizably different from those of the other Flycatchers.

by Arthur H. Howell. Auk, XVIII, Oct., 1901, p. 341.

Birds of Bristol County, Mass.
F. W. Andros.

Empidonax pusillus traillii (Aud.), Traill's Flycatcher. Migrant, rare.

O. & O. XII. Sept. 1887 p. 139

Bds. Obs. near Sheffield, Berkshire
Co, Mass. June 17-26, '88. W. Faxon

19. Empidonax pusillus traillii. TRAILL'S FLYCATCHER. — Three or four seen in alders near water-courses.

Auk, VI. Jan., 1889. p. 44

Bds. Obs. near Graylock Mt. Berkshire
Co. Mass. June 28 - July 16. W. Faxon

18. Empidonax pusillus traillii. TRAILL'S FLYCATCHER.—Several observed in the willows along the shores of the Hoosac River in North Adams. Shot a male, evidently nesting in the neighborhood, in a thicket of willows on Notch Brook, July 12; altitude about 1200 feet.

Auk, VI. April, 1889. p. 100

Museum of Comparative Zoology,

June 23 & 25, 1890

CAMBRIDGE, MASS. June 14/95

Found a pair of Alder Flycatchers in the old place in Purgatory Swamp yesterday. From the anxiety evinced by the birds, I have little doubt but there is a nest there. Am going to Mt. Lafayette (Flume House) to-morrow to spend Sunday & Monday.

W. Faxon

Empidonax traillii alnorum -
near Cambridge, Mass.

Malden, Nov. 6, 1901.

Mr. William Brewster,
Dear Sir:-

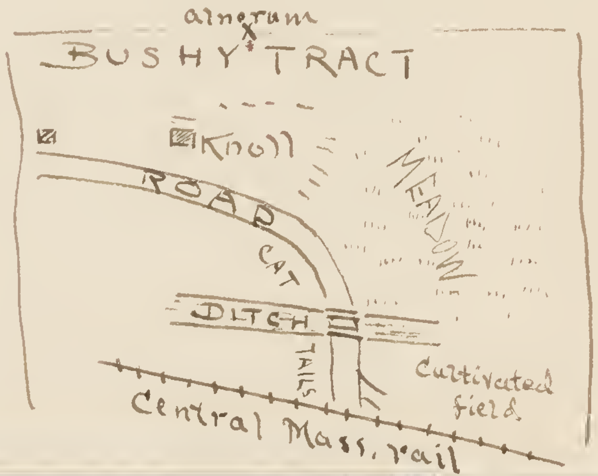
I thank you very much for your kind words in regard to the Alder Flycatcher article.

I did not find the bird breeding at Fresh Pond. I noted it on June 9, 1900, in the place which I have tried to show on the little map.

The incident brought strongly to mind your note on page 295 of Minot's "Land & Game Birds".

I do not believe the young bird referred to was "born and raised" very far from the place where it was shot.

Truly yours
John A. Farley



THE ALDER FLYCATCHER (*EMPIDONAX TRAILLII ALNORUM*) AS A SUMMER RESIDENT OF EASTERN MASSACHUSETTS.

BY J. A. FARLEY.

CERTAIN facts in the life-history of the Alder Flycatcher contribute to create the general impression that the bird is an exceedingly rare summer resident of eastern Massachusetts. Its chosen haunts are not too often in the eye of the world; it is not a vociferous species; and its manner of securing an existence keeps it for the most part out of view of the casual observer. Furthermore, the species being well known to arrive toward the end of the spring migration, an Alder Flycatcher, appearing late in May in the capacity of a returned summer resident, has doubtless been often mistaken for a migrant still northward bound. *E. t. alnorum* therefore, while always breeding sparingly, is not so rare a summer bird in the eastern part of Massachusetts as it is commonly supposed to be.

The Alder Flycatcher occurs in summer at various localities in Essex and Middlesex counties. I have noted it in the breeding season at Crane Neck Pond in Groveland, in northern Essex County, and so near Boston as Fresh Pond, Cambridge; also in the towns of Wilmington, Lynnfield, and Wakefield. In one locality in Essex County the bird is plainly increasing in numbers.

protagonist of the alders is quite as apt to be heard while the performer is perched unseen

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[1] This in spite of the fact that long ago the species was reported by Mr. Brewster to be "retiring but not shy." (Hist. N. A. Birds, 1874, p. 371.)

Ponkapog, Mass.
Unusual Record fo Massachusetts.

Empidonax traillii alnorum. Early in the morning of June 8, 1904, I found an Alder Flycatcher singing in a clearing by the roadside within a mile of my home in Ponkapog. Frequent visits convinced me that the bird was breeding, but it was not until the 24th that I found and took the nest with 4 eggs.

The clearing was originally a swampy tract of pine, white cedars and red maple but was chopped over in the winter of 1901–02, resulting in a sprout growth of maples combined with such shrubs as *Cornus paniculata, Alnus incana, Rhus venenata, Azalea viscosum,* etc.; the ground being still damp enough to support a growth of sphagnum and skunk cabbage.

The nest was well within the bushy area, 2½ feet up in an *Azalea viscosum* bush, of characteristic composition — dead grass with long loose ends hanging down.

Several times since I have seen Alder Flycatchers in both Canton and Norwood during the breeding season but have not taken the necessary time to find more nests.

Auk 26, Apr-1909, p. 198,199-200

Notes from Connecticut. General Notes.
Jno. H. Sage, Portland.

Empidonax pusillus traillii.— A male was killed at Norfolk, in the northwestern part of the State, June 20, 1893, by Mr. W. E. Treat. It was in low alders. Others were heard.

Auk X. Oct. 1893 p 371.

Birds of the Adirondack Region.
C. H. Merriam.

96. **Empidonax pusillus trailli** (*Audubon*) *Baird.* TRAILL'S FLYCATCHER.—Summer resident. Not common.

Bull. N.O.C. 6, Oct, 1881, p. 231

Breeding of the Alder Flycatcher (*Empidonax traillii alnorum*) near Plainfield, New Jersey. — During a visit to Ash Swamp, three miles east of Plainfield, Union County, New Jersey, on the 19th, 20th, and 21st of July, 1899, I was surprised to find the Alder Flycatcher (*Empidonax traillii alnorum*) a common species there.

My identification was confirmed by Dr. Jonathan Dwight, Jr., who examined a bird-of-the-year secured on August 6, 1899.

Circumstances pointed to its breeding here, and my experience during the past summer proves that it does so, for on every visit to the swamp I found the shy little flycatchers among the alders. These dates include May 30, June 17 and 24, and July 8, 15, 22 and 29.

The species is rather numerous and generally distributed throughout the swamp (which is less than one square mile in area), frequenting chiefly the alders along the streams and edges of the woods. Elsewhere in the vicinity of Plainfield I have found it only during the migrations.

I have not yet succeeded in finding an occupied nest, but discovered a deserted nest containing one egg, which may belong to this species. On July 29 I came upon one of these birds with a brood of full-grown young and saw one of the latter fed by its parent.

I believe this to be the first positive record of the breeding of this species south of northwestern Connecticut.

Its three congeners of the eastern United States all occur in this vicinity. The Least Flycatcher is a common summer resident, the Green-crested Flycatcher is a rare summer resident, and the Yellow-bellied Flycatcher is a fairly common transient visitor.

The avi-fauna of this region is decidedly Carolinian. — W. D. W. Miller, *Plainfield, N. J.* Auk, XVIII, Jan., 1901, p. 108.

Shelburne, N.H. Empidonax traillii

1884.

July. Abundant in thickets of alder (A. incana) cornel (C. stolonifera) along the Androscoggin and over the adjoining intervale. The same noisy, quarrelsome, yet shy and retiring birds as everywhere else where I have met it. On July 28th I invaded its riparian retreats and shot two specimens, both adults in unworn and otherwise perfect breeding dress. Their testes were much reduced but their vocal vigor was not impaired for they were calling on all sides during the entire forenoon (a still cloudy one). Their song (?) is a harsh,

The Singing of Birds. E.P. Bicknell.

Empidonax traillii. TRAILL'S FLYCATCHER.

I hear this species only while it is passing north on its migration, when it sometimes tarries into June.

Auk, 2, July, 1885. p. 256.

petulant, penetrating _que-quee_ or _quee-queea_ given quickly and with a strong emphasis on the second syllable. The call-note is a soft rather low _pit_ (Both cries noted in the field) I was also much surprised to hear one calling _pee-e-e_ alternating this note (which sounded very like that of _E. flaviventris_) with his usual cry. I saw no young but found an empty nest which some had apparently left recently.

The Singing of Birds. E. P. Bicknell.

Empidonax traillii. TRAILL'S FLYCATCHER.

I hear this species only while it is passing north on its migration, when it sometimes tarries into June.

Auk, 2, July, 1885. p. 256.

The Song-Notes of the Alder Flycatcher.— Mr. J. A. Farley, in his very interesting article on 'The Alder Flycatcher (*Empidonax traillii alnorum*) as a Summer Resident of Eastern Massachusetts' (Auk, Oct., 1901, pp. 347–355), says that the characteristic song of the species when heard at a distance of a few feet "is found in reality to consist of but one harsh explosive syllable." This statement is so much at variance with my own experience that I cannot forbear taking exceptions to it as a general statement, though of course it may apply to individuals of the species. First I must admit that my acquaintance with the Alder Flycatcher is not as intimate as Mr. Farley's. I have never been fortunate enough to find a nest, and I have never watched the bird for any considerable length of time. I am not, however, entirely unfamiliar with it, having made its acquaintance nearly seventeen years ago, *viz.*, in July, 1885, and having met with it in every successive summer since then, with a single exception, and in various places in Maine, New Hampshire, Vermont, Massachusetts, and Nova Scotia. In all this time I have never suspected the song to consist of a single syllable, and I have often been quite near the bird when he uttered it. It would, therefore, not be easy to convince me that the *characteristic song* of the species is not composed of two or three syllables, though I am aware that the bird has an emphatic one-syllabled note which is not to be confounded either with the insignificant *pep* or with what is known as the song. Let me quote two passages from my journal bearing on this point. Under date of June 25, 1895 (Londonderry, Vt.), I find: "In Chapman's new 'Handbook of the Birds of Eastern North America,' Dr. Dwight gives *ēē-zēé-ē-ŭp* as the song of *E. traillii* [= *E. t. alnorum*]. Hearing the song at a distance this summer I preferred Mr. Brewster's rendering *ké-wing*, but, getting nearer to-day, I find Dr. Dwight's a pretty exact rendering, though I myself should put it *wēē-zēé-up*, the *up* very faint." (If it were not superfluous, I should like to compliment Dr. Dwight on the felicity of his descriptions and syllabifications of bird-songs.)

The other passage is dated at Willoughby Lake, Vt., June 18, 1896: "In a swampy place southeast of the house I saw two *Empidonax traillii alnorum*, one of which, perhaps the male, had an emphatic *k'weet* which was new to me." I may add that I was no nearer this bird than I have often been, both before and since, to others uttering the familiar two-syllabled song-note, and the difference between the two notes was so marked that there could have been no confusing them.— Francis H. Allen, *West Roxbury, Mass.*

Auk, XIX, Jan., 1902, pp. 84, 85.

The Song of the Alder Flycatcher.— I have studied the notes of the Alder Flycatcher for two years, very closely, in Maine where it nested near the house, and I heard its song and various other utterances nearly all day. The ordinary song, as I know it, consists of two notes much like the Chebec's. It is in the hoarse tone of the Phœbe, and is jerked out with a backward jerk of the head, after the manner of the Least Flycatcher, and to my ear, it sounds like *red-dy*, sometimes — but not by any means generally. He gives in addition to this, another two-note utterance, much lower, and of a clear musical quality, very different from the hoarse common song, without tossing the head, or jerking.

Besides these he has several other utterances, a loud clear *queoe*, several times repeated, as if to command attention, and a low plaintive *qu?* — *qu-eŭ.* In addition to these he gives many different notes in an undertone, which can neither be described nor imitated by the human voice. In fact, the bird is extremely versatile. My studies have always been made where I could *see* as well as hear the bird, so that there is no possibility of mistake. I have never been able to make Dr. Dwight's, Mrs. Wright's or Mr. Chapman's characterization of the song fit my bird, but I learned long ago that no two persons hear a bird note alike, or, rather, that no two birds have exactly the same utterances.— Olive Thorne Miller, *Brooklyn, N. Y.*

Auk, XIX, July, 1902, p. 289.

Auk, XII, July, 1895, p. 302.

Breeding of Traill's Flycatcher in Eastern Massachusetts.—On June 18, 1895, I took a set of four eggs of Traill's Flycatcher in Lynnfield, a small town twelve miles north of Boston. On various occasions earlier in the month I had seen Traill's Flycatchers in a bushy meadow and the actions of individual birds led me to believe that one and perhaps two pairs of this species were intending to breed.

On June 16 I searched for a nest and soon found one with three eggs. The following morning there were four eggs. On neither occasion was a bird seen at the nest but on the morning of the 17th one of the Traill's Flycatchers flew about in the neighboring bushes and complained. On the afternoon of June 18 I went to the nest in company with Messrs. E. H. Forbush and C. E. Bailey. As on previous occasions, the bird was not on the nest. Mr. Bailey ensconced himself in the bushes and after an hour's wait shot one of the Flycatchers. The bird came near the nest and drove away a Maryland Yellow-throat, and then after an interval appeared again and lit on the nest and looked at the eggs. A moment later Mr. Bailey shot her. This bird is now in the collection of Mr. Wm. Brewster.

The nest is a typical Traill's, being constructed of fine grasses and neatly lined. The body of the nest is a quite compact and well-made structure but there is a lot of loose odds and ends in the shape of long, grasses stringing down from the outside of the nest.

The eggs, four in number, and very slightly incubated, are white with reddish spots (nearly flesh-colored), these being principally at the larger end and forming a slight ring. The nest was three and a half feet from the ground and in a small wild rose-bush. The locality is a bushy meadow, the growth being principally alder, young maple, white cedar and wild rose-bushes.—J. A. Farley, *Newton, Mass.*

Traill's Flycatcher
Shot by Chas. E. Bailey
South Lynnfield. Mass.
June 15-1895 6.15 P.M.
J. A. Farley found nest containing 4 eggs
June 16 - (In his collection now.
Presented in the flesh by C. E. Bailey.
Skinned by S. W. Denton sex ♀

(Skin no 46022 Coll. W. B.)

I have taken a set of Traills Flycatcher, rare nests here.
Howard H. McAdam, Oak Bay, N.B.

O. & O. IX. Jan. 1884. p. 12

Nests in which Cowbirds' eggs have been found
C. C. Poling

2. *Empidonax pusillus traillii.* Traill's Flycatcher. A nest found in June contained one egg of the Cowbird.

O. & O. XIV. Sept. 1889 p 133

July 1. — Found a nest of Traill's Flycatcher containing seven eggs. It was concealed among the thick foliage of an apple tree, which showed no traces of previous climbing. The eggs have evidently been laid by two birds, as four of them are of a light ground color and quite globular, while the others are darker, more oblong and heavily spotted. Of twenty nests of this bird taken this season, thirteen have contained four eggs.
— *C. W. Strumberg.*

Notes, Galesburg Ill.
O. & O. VIII. Jan. 1883. p. 8

Empidonax trailli.

For nesting see Bull. N. O. C. 5, Jan., 1880, pp. 20-25.

~~admirable bravery, it snaps its little bill at him. Even the swift Mocker never dares to touch it.~~

~~Still another peculiarity is the childish persistence with which it insists on going to rest at night always on the same perch. Having free range of the room, it chose the leather side of a common wall-pocket as its perch, and now it will not be content anywhere else, but flies about and cries till allowed to go to its chosen place, when it settles down with contented whisperings. After dark it is taken on a finger and put in its cage in satisfied peace.~~

~~Though professedly a warbler, it sings but very little. In the morning when coffee is being ground for breakfast, the music of the coffee-mill always charms it into song, and at other times it occasionally warbles a little, the notes being always low and sweet, and sung in a quiet, happy way, yet as a singer it is not conspicuous. But as a loving little pet, whose perfect love for its master and mistress has cast out all fear, and yet whose brave heart fears no other bird, it is a pronounced success.—*W. G. Wright, San Bernardino, Cal.*~~

Traill's Flycatcher.

(*Empidonax pusillus Traillii.*)

Previous to 1878, when I found its nest, this bird was unknown to me. I continued to find one or two nests yearly up to 1882, when I found eleven, and in 1883, three, in all twenty nests. Three was the prevailing number of eggs, but one nest contained four. Several of the nests when found contained but one or two eggs, so they were left that the sets might be complete; but it often happened upon a second visit that one or two, and sometimes all the eggs would be broken. I am satisfied that they were broken by the birds themselves, as the Flycatcher disposition is well developed in this species. The ground color of the eggs is creamy white. The markings vary much in different sets; some have large blotches, spots and minute dots, others have small spots and minute dots. The markings are sparingly scattered, principally at the larger end, and present many shades of red—brick-red, reddish-brown, and sometimes a faint lavender tint.

Three sets measure as follows: .77×.56, .77×.55; .70×.56, .75×.54, .77×.55; .77×.55, .72×.56, .70×.52. June 13, 1879, is the earliest date I have found a nest containing eggs, and July 30, 1883, the latest. The eleven sets obtained in 1882 were taken between June 20th and July 8th; the three sets obtained in 1883 were taken between July 14th and 30th.

The nests, although lacking the solidity and durability of those of *Empidonax minimus*, are very pretty and interesting; outwardly composed of dried grasses—slightly agglutinated to the forked twigs which support them, bits of cobweb, and rarely a dried leaf or bit of lint. The lining of fine dried grass, and rarely a horse-hair, is very neatly arranged. From most of the nests there was hanging from five to twenty spears of dried grass, varying in length from three to ten inches, which evidently were left hanging at the commencement of building. An average nest measures as follows: Diameter, three and one-half inches; height, two and one-half inches; depth of cavity, one and one-half inches; diameter, two inches. The site of the nest was invariably the upright fork of a small bush, varying from eighteen inches to three feet from the ground. Their favorite nesting localities are low grounds, usually near a stream. A notable exception was a nest found on the top of a high hill, one and one-half miles from a stream. It was in the centre of a large tract, covered with a growth of briers, bushes, and scattering trees. The nests found one-half mile from a stream in a hill sheep pasture, differed from the others in having an abundant supply of wool

mixed with the dried grass. This no doubt was a local characteristic, as the pasture was plentifully supplied with briers to which particles of wool adhered. The birds are very shy and uneasy. Leaving the nest at the first approach of an intruder, they will secrete themselves in the nearest covert, where, uttering their unmusical notes, they give vent to their displeasure. They spend most of their time in the coverts of bushes, showing their presence by frequently uttered notes, or by being seen darting after some passing insect. After the season of incubation is over, they become rapidly silent, and, during the remainder of their stay, their notes are heard only at rare intervals. By the middle of September none of them are to be seen, as they have left for the South. Their return in the Spring varies with the season, but is usually the last of May.—*C. O. Tracy, Taftsville, Vt.*

O.&O. IX. Feb.1884. p. 14-15

about the rooms through the day, as screens at the doors and windows kept them from escaping, although they did not attempt to get out or fly against the windows as wild birds usually do.

I soon taught them to come at my call and feed from my lips, or rest on my breast while at my painting, and that recalls an amusing incident that happened to one of my pets. Being "ferociously" hungry he made a dash at a mass of chrome-yellow on my pallette which stuck to his bill, and as I was hurrying to finish my day's work I did not notice the mishap until his plaintive peep, and fluttering before my face, called my attention. Upon relieving the poor little "*Omoline Ortesi*" of his superabundance of chrome-yellow, he uttered his thanks and made a hurried dart after a fly. I have often seen both making quick, short turns and not stopping until one or the other had made a captive of a house fly. They would perch themselves upon the rounds of my chair, chirping with a squeaky, unmusical note, as if to let me know of their presence.

When their food was gone they would poise themselves in the air close to my mouth, thrust their bills between my lips, then fly to their cup, then back to my mouth, and repeat it until I answered their demands. J. G. Cooper remarked, while watching their flight through the rooms, that he had never known of the hummers having been taught to gather honey from flowers only by the parent bird, and I decided to make the experiment, gathering some scarlet geraniums and verbenas, placing them in a vase on the table, holding up my brush, I called my pets to me. I placed them in front of the flowers. They did not take any notice of them. I then put a drop of syrup in the centre of each blossom, putting the bills on the drops of sugar, which they sipped from every flower, hovering in the air as we see them out of doors; they did not need a second lesson nor did they ever forget their instruction.

Nesting of Traill's Flycatcher at Grinnell.

BY LYNDS JONES, GRINNELL, IOWA.

The nesting of the *Empidonaces* and *Contopus virens* for several years gave me no little trouble. It was not until I had taken several birds with their nests that I could always be sure when I had a nest of *Empidonax trailli* and not that of some other Flycatcher.

I have found many nests of this bird and in many different positions. One nest was almost pensile, placed between twigs of a small bush a foot from the ground. Only a small part of the nest projected above the horizontal twigs, while three or four inches of the loose material of which the nest was composed hung below. The color, position and material of the nest so closely resembled that of the nest of Bell's Vireo that at first sight I thought it was that, but a second glance showed me my mistake. This was a very compactly made nest of the bark fibres of weed stalks, intermingled with a little dry grass and a few long hairs from a cow's tail. It was in the midst of a thicket of brush and trees, a few rods from a small stream.

Another nest very much like the last in material was placed on a bough, and was far less compactly built. This one was in a small tree standing alone and overhanging a stream, and was about six feet up.

Two others I recall whose positions were very unusual. The one was in a hedge-row of willows, built into the upright forks much as is the nest of *Lanius* or Goldfinch or Yellowbird. This is a very slovenly made nest. The other was lashed to the side of an upright fork in much the same manner as a grain sack is held open to facilitate the improving of the grain, *i. e.* held on only one side at the top. The latter one was necessarily quite strongly made, for its support was the lashing at the top. The composition of both these nests was the same as the first, and each contained four eggs.

While the second form of nest mentioned is not rare, yet the first is the common one and the composition varies but little; at least the nest is always largely made up of the soft fibrous bark of weed stalks, usually of a neutral tint, preferably leaden-gray. And the nest complement is three or four eggs, never more than four.

The nest may be found as early as the first of June and as late as the middle of July, but only one brood is reared.

While this bird usually frequents the woods or willows immediately bordering a stream of running water, yet we sometimes find it high up on the hills and far from any stream.

O.&O. XII. Dec. 1887 p. 204.

~~mers. Their happy, chirpy notes, quick flights, sporting with each other, their morning bath and winsome ways, were as a golden ray of sunshine that brightened the every day cares of life; and here let me add the more one will encourage themselves in gleaning a little here and gathering there, in a few months they would be astonished at the amount of information gained from Nature's never ceasing wonders which lie all around us or near our reach if we will but seek and gather.—*Mrs. C. M. Crowell, Haywards, Cal.*~~

Traill's Flycatcher.

ITS NESTING HABITS IN OHIO.

Traill's Flycatcher, (*Empidonax pusillus trailli*), arrives in Ohio the last of April or the first of May, passing northward along the margin of the streams. So far as I have observed, it seems to be more shy and restless than others of the genus. Its presence is made known by its short and pevish notes, uttered at intervals as it flits from bush to bush or across a stream.

About the latter part of May they retire to their favorite breeding resorts, which are always in low grounds, and are especially fond of thick willows and alders along the banks of running streams. These localities seem to be characteristic of this species; at least I have never found them elsewhere during the breeding season. In the vicinity of Columbus they are, apparently, a common Summer resident, breeding abundantly. The bird was not known to breed in Ohio until its nest was discovered by Dr. J. M. Wheaton, in June, 1874, in this vicinity. In 1879 I obtained four nests with eggs; in 1880, six nests with eggs; in 1881, between May 28 and June 17, I obtained eighteen nests containing eggs. The locality was in a thick growth of alders bordering a canal, three miles north of the city. None of these nests were placed higher than eight feet from the ground, and in most cases from two to four. In nearly all instances they were built in an upright fork, the small twigs that surrounded them were made available to secure them firmly in their place by being encircled with stringy fibres.

Ten nests before me have a strong resemblance to the usual structure of the Yellow Warbler, (*Dendrœca æstiva,*) but probably lack in compactness and neatness. The external or greater portion of the nest is composed of hempen fibres, internally lined in true Flycatcher style with fine grasses. In some, however, there is a slight lining of horse-hair, and of the down from the milk-weed or thistles. A typical nest measures as follows: Height, two and a half inches; diameter, three inches. The cavity is an inch and a half in diameter, and two inches in depth. In nearly all cases these nests contained but three eggs; rarely four, and a great many in varying stages of incubation. A nest was often found with one fresh egg and two others partly incubated, showing that the eggs were, in some cases, laid on alternate days, and sometimes as late as a week after the first was deposited, as is often the case with our Cuckoos. The ground color of these eggs is extremely variable. In some it is of a cream color, in others approaching buff. In four sets before me there is a striking variation in the distribution of the markings. They are usually marked chiefly at the larger end with large blotches of red and reddish-brown. This, however, is only characteristic in one of these sets, while in the others the markings are simply very small dots, sparingly sprinkled over the surface, and in some these dottings are scarcely visible, giving them the appearance of an almost unspotted surface. Six eggs measure respectively 72×55, 70×53, 70×52, 64×53, 69×52, 70×53. There is scarcely any perceptible difference between the eggs of *Trailli* and those of *Acadicus*. The western eggs of *Trailli* probably have a darker ground, and the spots are more vivid, but I do not believe any one can tell them apart with certainty.—*Oliver Davie, Columbus, Ohio.*

O.&O. VII. May. 15, 1882. p. 128.

Empidonax traillii alnorum

♂ ad Mt. Forest, Ontario, Canada,
June 13, 1892 - Allan C. Brooks.

A skin with above data sent me by Mr. Brooks for examination June, 1895 proves on comparison with my series to be referable to *E. t. alnorum* although it is unlike any specimen that I have. Its chief peculiarity is in the colouring of the head and anterior upper parts which are almost as dark (although more olivaceous) as in *Contopus richardsonii*. The wing bands are brownish white and very distinct. The bill is comparatively small & narrow as in typical *alnorum*.

one of the hemlocks a bird which I felt sure was of the same species taken a few days before. From her manner I felt she had a nest not far distant, and remembering how closely the other allowed me to approach before leaving her eggs, I concluded that I must have passed very near the nest of this bird; therefore retracing my steps, and looking carefully among the bushes I soon discovered the object of my search. Desiring that there should be no mistake about the species, I at once went home, and, taking my gun, returned to the place. Approaching cautiously I discovered her on the nest. She permitted me to approach very near, and then, like the other, dropped suddenly from the nest, and flew into the same hemlock in which I first found her. After securing my bird I took the eggs, but to my regret found that incubation had proceeded so far that it was impossible to save them. These—four in number—were of a darker shade than the first set, but this was evidently the result of incubation. They were also more spotted, and the spots spread more generally over the entire surface than in the other set. The nest was not so near the ground as the first, the top being eleven and one half inches from it. It was placed in a laurel, or more strictly speaking, in two laurels. One of these lay horizontally in the fork of the other, and on the horizontal one the nest was set, held in place by being attached on one side to the upright branches of the other. It is constructed of the same materials as the first, excepting the woolly substance on the outside, of which there are only two small pieces. External diameter, three and one half inches; internal, one and seven-eighths inches; external depth, two inches; internal, one and three-eighths inches.

As will be seen, by comparison, the nest is much more flat than the first, the result, undoubtedly, of its different situation on a horizontal branch, while the other being in a narrow triple fork, was necessarily narrower and deeper. Placed side by side the two nests bear very little resemblance, and would hardly be suspected of belonging to the same species.

Bay State Oologist.
1510. *Nesting of the Traill's and Acadian Flycatchers.* By Philo W. Smith, Jr. *Ibid.*, pp. 5-6. Auk, VII. Jan. 1890. p. 81.

The Oologist. 1589. *Nesting of the Traill's and Acadian Flycatchers.* By Will. C. Brownell. *Ibid.*, pp. 96-97. Auk, VII. Jan. 1890. p. 84.

392. *Traill's Fly-catcher. Its Nesting Habits in Ohio.* By Oliver Davie. *Ibid.*, p. 128. O. & O. Vol. VII

THE OÖLOGIST'S EXCHANGE.

VOL. II. NEW YORK, JULY, 1889. No. 4.

Trail's Flycatcher.

(EMPIDONAX PUSILLUS TRAILLII.)

BY W. INGRAM.

This bird is a fairly common summer resident in this locality and I am pleased to say one that is on the increase yearly. It is a sub-species of the Little Flycatcher and, also closely resembles the Acadian, but has different notes and builds a different nest in different localities. It has no gaudy colors; a description given by Mr. L. O. Pindar is as follows: "Above, olive brown, darker on the head; below grayish white, wing bars the same color." Although this is concise it covers all. It is one of the smallest of the family being about the size of a Chipping Sparrow. It is a true flycatcher, having a muscicapa bill with recumbent hairs at the base. It has much the appearance of a King bird on a diminutive scale and while the flycatcher disposition is highly developed in this species I have repeatedly handled their eggs and nests without causing them to desert them and have often examined an unfinished nest without their "pulling up stakes."

Their favorite nesting places are in the wild plum trees along a stream, a hedge row or a retired orchard. I have found three forms of the nest, the most common one being built in an upright fork of a wild plum hedge or alder, being made fast at the sides by hempen fibres; the second is placed *upon* a swinging limb of a plum or elm, being fastened to the limb below like a Robin's nest, this form is necessarily compactly built as is the third or pensile nest which is swung between the forks of a swinging plum or apple tree, not unlike the nest of a Vireo. I have found but few of this form and regard it as the rarest of the three. The nest is generaly constructed of hempen fibers, lined with very fine grass and a few feathers from the breast of the bird, while horse hair sometimes enters into its composition, one nest found was composed almost entirely of "Tickle grass" while another contained a large amount of wool, but I suppose these were merely local characteristics as the former was near an old field of grass and the other was in a sheep pasture, the height of the nest ranges from two to ten feet.

The eggs have a creamy white ground color, while the markings vary much in different sets, some having small spots and minute dots, others have large blotches and faint spots. The markings are principally at the large end and present many shades of red, brick-red, reddish brown and sometimes a faint lavender tint. They measure from .70x .52 to.77x.56 and vary as much in shape as in size. I agree with those who say that the prevailing number is three (and I have examined over one hundred nests) very *rarely* have I found *four* and only *once five* and as two of the five were so different from the others I believe the set was laid by two birds. The earliest date for a complete set was June 8,(88) the latest July 15, (85).

The birds with two or three exceptions were very shy and uneasy, leaving the nest at the first alarm (which "by the way" is given by the male who is on the watch continuously) they will secrete themselves in the nearest covert and give vent to their displeasure by an occasional "sharp, shrill chirp." They have a very monotonous song which is poured forth from some alder or small tree in slow and troubled manner. After the breeding season is over they are rare and by the middle of September they have all gone south, they arrive in the Spring the middle of May. A common migrant in the Mississippi Valley, breeding from Southern Illinois northward.

Odin, Ills., July 3, 1889.

The Great White Heron.

BY T. G. PEARSON.

These beautiful birds which are being constantly slaughtered for their plumes and skins are, it is said becoming less numerous each year, and I fear, ere long will become as rare as the Roseate Spoonbill.

Their nests as I have found them are, as standard authorities say, "placed in almost impenetrable swamps."

Birds of Grant and Traverse Cos.
Minn, June, 1879 Roberts & Benner

37. **Empidonax trailli,** (*Aud.*) *Bd.* TRAILL'S FLYCATCHER.— On July 19 a nest with three fresh eggs of this species was taken in a tangled growth of wild-plums and grape-vines. The nest was built about three feet from the ground, in the fork of a small plum-tree, and entirely hidden by the grape-vines which covered the tree. It was composed of dry grasses rather compactly woven and lined with finer pieces of the same. External diameter 3½ inches; depth 3. Internal diameter 2; depth about 1½ inches. The ground color of the eggs, which measure .75 of an inch in length by .56 in breadth, was a very rich cream-color before blowing, and afterward assumed a creamy-white appearance, having a circle of dots and spots of a reddish-brown color at the larger end. The female was shot.

Bull. N.O.C. 5, Jan., 1880, p.16

Auk, XII, Apr., 1895, pp. 159-161

TRAILL'S FLYCATCHER. **Empidonax traillii** (AUD.).

The breeding range attributed to this Flycatcher has puzzled ornithologists not a little, — and with good reason, for east of the Alleghany Mountains the bird appears to be practically confined to the Canadian fauna, whereas in the Mississippi Valley it breeds at least as far south as southern Illinois; in the one case associating (in a faunal sense) with such northern birds as Swainson's Thrushes, Winter Wrens, Canada Jays and Three-toed Woodpeckers, in the other with such southern forms as Carolina Wrens, Tufted and Carolina Titmice, Cardinal and Blue Grosbeaks and Bachman's Sparrow. I have long suspected, however, that the Traill's Flycatcher of Ohio, Indiana and southern Illinois is not the same bird as that which breeds in northern New England, and a recent examination of the material in the collection of the United States National Museum and Department of Agriculture has confirmed this impression which, it may be added, is now shared by Mr. Ridgway, Dr. Merriam and Capt. Bendire, who have also given the matter careful attention.

I did not at first suppose that the question affected more than the identification of certain of the Mississippi Valley specimens, but it proves to have a broader significance, as will be presently shown. The type locality of *Muscicapa traillii* Aud. was the

Notes on Certain Flycatchers of the Genus Empidonax. Wm Brewster.

guishable from the latter. Considered as a whole the series of breeding birds which I have examined from the United States at large, west of the Alleghanies and south of the 42nd parallel, may be regarded, without much violence, as belonging to one and the same form.

The name which this form should bear is a matter of some uncertainty for although *Platyrhynchus pusillus* Swainson antedates *Muscicapa traillii* Audubon by several years it is not determinable by Swainson's original description (Syn. Mex. Birds, Phil. Mag., I, 1827, p. 366). In the Fauna Boreali-Americana (Part second, 1831, pp. 144–146) this author describes and figures under the name "*Tyrannula pusilla* (Swainson)" a Flycatcher taken at "Carlton House, lat. 53° N., May, 1827," which he says is smaller than the *T. querula* of Wilson [= *Empidonax virescens* (Vieillot)] "particularly in the bill, which is rather broader towards the middle, although formed on the same model," and in respect to the wings which "are much shorter" measuring "only 2 inches" in length. He

minimus

Empidonax minimus. * = flight song.

1889

April Cd. 30^{1}* Apr. 27 Waverley (Faxon), 29th Melrose Highlands (Torrey). 1889. Bel. 23^{1*}(Fax.) Cd. 24^{1}* – Way 26^{1}* – Cd. 27^{2}* – C. 20^{1*}(Peabody) 1891.

May C. 8^{1}* – Cs. 10^{9} – B. 11^{3} – C. 12^{1} – Cg. 13^{1} – C.B.Wm. 14^{20}* [Cs. 16^{4} – Cd. 17^{6} – C. 25^{3}* – W. 29^{6} – B. 30^{2} – W. 31^{6}* 1889. Cs. 2^{2}* – C. 7^{2}* – C. 9^{1}* – Cg. 10^{1}* – Cg. 11^{1}* – Cs. 13^{9} – Cd. 15^{5} – Wa. 16^{4} 1890

June Cd. 1^{4}* – F. 3^{1} – W. 4^{4} – Cs. 5^{1} – Cg. 8^{1} – Cg. 9^{1}* Cg. 10^{1}* – Cg. 11^{1}* 13^{1}* Way 16^{2}* – Cg. 20^{1}* – Cd. 21^{1}* – Cg. 23^{6}* – Cg. 24^{1}* (1889)

July Cg. 2^{1} – Cg. 26^{1} 1889. Cg. 7^{1} – Cg. 11^{1} – Cg. 12^{1} – Fal. 6^{1}* 1890

Aug Cg. 12^{2} – Cg. 13^{1} – Cg. 14^{1} – Cg. 17^{1} – Cg. 18^{1} 1889

May Cs. 17^{8} – 19^{10}* – Cs. 22^{1}* – Cs. 23^{4}* – Somerville 24^{2}* – B 29^{2}* – Cd.-Way 30^{8}* – Way 31^{6}* 1890 Cs. 4^{1}* M.V. 9^{1}* – Cg. 1* 10^{12} 4* – M.V. 12^{1}* – Cg. 13^{1}* – Cg. 14^{1}* – Cg. 1* 15 Cs. 4* – Cg. 16^{1} – Cd. (Mrs. ...) 22$^{5-7}$ – Cd.-Way 23 7* (2 seen)} C – Cg. 27^{1}* – C.-Carl. 28^{15}* 1891
30^{2}* 31^{1} Concord

" 2^{3}* 3^{5}* 4^{3}* 5^{3} 6^{4} 7^{6} 8^{6} 9^{4} 10^{3} 11^{4}* 12^{5}* 13^{3} 14^{4} 15^{4} 16^{4} 17^{4} 18^{2} 19^{2} 20^{3} 21^{4} 22^{3} 23^{2} 25^{1}* 28^{2} 29^{2}* 92 minimus

" Cd. 1^{1} Cg. 6^{1}* – C. to Cdr. 9^{15}* – 1^{1} 9^{2}* – 10^{6}* – 11^{4}* – 12^{2}* – 14^{2}* – 15^{2}* – 16^{2}* – [Cd. to B. 17^{20}*] 19^{2}* – 20^{6}* – 21^{1}(Ball's H.) 22^{1}* – 23^{1}* – [Cd. to Cg. 24^{4}*] [C. to Cd. 25^{4}*] 26^{1}* – 27^{1}* – 28^{2}* 29^{2}* –

" 30^{1}* – 31^{3}* Concord 1893

" Cd. 1^{1}* Cg. 2^{1}* – Cd. 3^{1}* Cd. 4^{1}* Cd. 5^{1}* Cd. 7^{2} Cg. 8^{1}* Cg. 9^{1}* Cg. 10^{1}*

June May-Cd. 1^{6}* – Cg. 2^{1}* – Cg. 3^{1}* – B. 5^{2}* – Oak Id. 7^{1}* – Cg. 8^{1}* – S. 10^{8}* – Cg. 11^{1}* – Swampscott 13^{2}* – 14^{4}* – Cg. 18^{1}* – Riv. 21^{2}* – Cg. 23^{1}* – Fal. 25^{1}* 1890. Cg. 4^{1}* – Cg. 5^{1}* – Cg. 6^{1}* 7^{1}* 8^{1}* 1891

" 1^{2}* 2^{2}* – 3^{1}* – 4^{1}* 5^{1}* 6^{1}* 7^{2}* 8^{2}* 12^{2}* 13^{3}* 14^{1}* 15^{1}* 18^{1}* 19^{3}* 20^{1}* 22^{2}* 23^{2}* 30^{1}* Concord
Concord 26*, 27*, 28*, 29*, 30*

July 1^{1}* 4^{1}* 5^{4}* 6^{4}* 7^{4}* 8^{6}* 9^{2} 10^{2} 11^{2}⊛ 12. 13^{2} 14^{2} 15^{2} 16^{2} 18^{4} 19^{2} 21^{2} 23^{1}* 25. 26^{8} 27^{8} 29^{3} Concord
1^{1}* – 2^{1}* – 3^{1}* – 4^{1}* – 5^{1}* – 6^{1} – 7^{2}* – 11 – 12^{2} – 13^{3} – 14^{1} – 15^{3} – 16 brood going. 17⊛ – 23^{1} – 29^{1}(Balls H.) 30^{2} – 31^{1}* 2 birds young 1 bird chebec-ing listlessly, Concord 1893.

August 1^{2} 2^{2} 3^{2} 4^{1} 15^{1} 17^{1} – 20^{1} – 21^{1} Concord
2^{1}⊛ – 3^{1}⊛ – 10^{1}⊛ – 31^{1} whit heard. Concord. 1893.

September 7^{1} alone in white pines very tame, pos. identified – Concord

April Cd. 30^{3}* a. 27^{1*}(Fax.) a 29^{2}(Fax.) Cd. 29^{1}* Cd. 30^{1}*
" 27^{1}(Fax.) 28^{3}(Fax.)

Empidonax minimus

B. = Brewster's
B. H. = Ball's Hill
D. H. = Davis' "
B. F. = Barrett farm

minimus

April 27^{1}(Fox) 28^{3}(Fox) 1 1894 a. 30^{1} * (Fox) 1898 a. 27^{1} Fox. Holden's orchard, Cd. 28^{1} * B.H. 30^{2} * Cd. 99 ~~1899~~

a. (Fox) Cd. 26^{2} 29^{2} 30^{2} * 1895 1895.

Concord 26^{1} * (Village) 27 (Buttricks) 28^{1} * 29^{2} * Mystic Pond 23^{1} * (Hoffmann) 1896 96

Cd. 25^{2} * W. Bartlett. W. Bedford 26^{1} * Ball's H. 27^{2} 1897

May Cd 1. Cg. 2^{1} * Concord 3^{1} * 4^{1} * 5^{1} * 7^{2} Cambridge gar. 8^{1} * 9^{1} * 10^{1} * 11^{1} * 12^{1} * Concord 13^{3} * 14^{2} * Cg. 15^{1} * Cg. 16^{1} * Barnstable 19^{1} * Cd. 20^{2} * Cg. 22^{1} ♂ * ♀ building Cd. 27^{1} * Cg. 29^{1} * Cg. 30 ♂ * ♀ on nest. 1894.

" Concord 1^{2} * 2^{1} * 3^{2} * 4^{2} * 5^{1} 6^{2} * Cg. 8^{1} * C.&B. 9^{6} * Cg. 10^{1} * Cd. 12^{2} * Cd. 23^{6} * c. Cg. 24 ♀ sitting ♂ * 1895

" C. Dr. Wyman's pl. 1^{1} * Cg. 2^{1} * Cg. 4^{1} * Cg. 9 ♂ ♀ building nest. 1896 C (Longfellow's place) 4 1 * Cg. 8^{1} * 1897.

" W. Bedford 5^{1} * 6^{1} * 7^{1} * Ball's Hill 10^{1} * 11^{1} 13^{1} * 14^{1} * 18^{3} * B.H. 20$^{(2)}$ Davis Hill 22^{2} ♂ ♀ * Concord. C. Wyman willows 27 1 * Davis' Hill 30^{1} * Cd. Concord 1898

" Concord 1^{1} * 2^{3} * 3^{2} * 4^{1} 5^{2} S. ford 6^{4} * 7^{3} 8^{3} 10^{3} 12^{2} Concord 12^{4} 13^{1} * 2 * B.F. B. D.H. 18^{3} * D.H. 19^{3} * B.H. 20^{2} * B.H. 21^{1} * Cd 22^{1} * 6 * B.H. 23^{1} * D.H. 24^{1} * D.H. 25^{1} * D.H. 26^{1} * D.H. 27^{1} * Keyes' place 29^{2} * D.H. 30^{1} * 1899

" Cg 15^{1} W.D. Cg. 28^{2} W.D.

June Cg. 1^{1} * Cg. 6^{1} * Cd. 7^{5} * Wareham & Plymouth 9^{10} 10^{8} 11^{15} pitch pine woods 1894.

" Cg. 8^{1} Cg. 9 ♀ at nest, Cg. 11^{1} Cg. 21^{1} * Cg. 22^{1} * Cg. 23^{1} Cg. 24^{1} * Cg. 25^{1} * Co. 26 ♂ ♀ on nest Co. 27 do. Cg. 28^{1} Cg. 29^{2} Cg. 30^{1} * 1895

" Concord 1^{1} * 5^{1} * 6^{2} * 8^{3} * Mt. Auburn 18^{1} * 21^{2} (1 *) Concord 23^{1} * 24^{2} * 1898.

July Cg. 3^{1} * Cg. 4^{1} * Cg. 5^{1} * Milton 8^{2} Cambridge Garden 9 brood of young 10 do. 11 do Cg. 14^{1} * (only once) Cg. 22^{1} Cd. 25^{1} (Ball's Hill) Cg. 31 1 juv. 1894

Cg. 1-2-3-4^{1} * 5-6-7-8-9-10-11 young one 1895

August Cg. 5 1 juv. Cg. Sw. 6 young heard Cg 9 do Cg 10 do Cg. 12 1 juv. 1895

September

73

Empidonax minimus

Eastern Massachusetts.

1889 Mass.

May 10 Cambridge. - Five in the Maple Swamp, four in the willows at the east end of the Brickyard Swamp. The latter were apparently two pairs, each of which ranged over a little domain of its own from which all other birds were driven away. The males of both pairs uttered their monotonous che-lȧt, che-lȧt, che-lȧt every few seconds and their mates responded by a low whit. If I am not mistaken I also heard the females give the che-lat once or twice in an undertone. Both females were evidently hunting for building sites for I saw both repeatedly fly into forks of stout branches, such as are usually chosen by the species, and settling their bodies in them turn around slowly once or twice just as a bird turns when moulding the interior of its nest. In no case did the bird have any building material in its bill nor could I discern any in any of the forks. — Song; ♀ singing; ♀ hunting for nesting place.

The ♂ usually sings at a height of 20 to 40 ft. preferring for this purpose a dead twig near the top of a tree but under the leafy canopy formed by the upper branches. At each utterance of the che-lȧt it throws its head upward with a sudden jerk. Otherwise it sits very still and almost bolt upright. Every few seconds it darts out after a flying insect and after securing it returns to the same or an adjoining perch usually flirting its tail a few times and often quivering its wings tremulously upon realighting. Minimus is not a shy bird but on the other hand it is seldom confiding. It apparently regards man with proud indifference tinged, at times, with some slight suspicion. — Habits

This evening some time after sunset I heard the flight song of a Least Flycatcher. I did not see the bird but from the sound he must have been over Mr. Horsford's place. I have ~~heard~~ neither seen nor heard any others near our place this year but noted one ~~yesterday~~ this morning in Dr. Wyman's place & one May 11 on Brattle St. opposite the Lowell place. — Flight song. Horsford place; Wyman "; Lowell "; (To p. 65) 74

Empidonax minimus

1889 Mass.

May 25 Cambridge. – I heard three different birds singing in Cambridge this morning, one on the Hubbard place and two on Quincy St. It may be safely assumed that these are all settled for the breeding season. I think there is another on the James Russell Lowell place.

Census of birds breeding in Cambridge

" 29 Watertown. – Fully as numerous on the Coolidge farm as they were twenty years ago. I found a nest but did not climb to it. It was in an apple tree near the top and perhaps 25 ft above the ground in an upright fork. There were few leaves about it and its light grayish color and fluffy outlines made it a decidedly conspicuous object. The ♀ started off before I got under the tree and ~~perched~~ on a dead branch on the other side of the tree. I withdrew and she soon returned to the nest approaching it very cautiously by short flights feigning to be flycatching on the way.

Abundance on the Coolidge farm

Nest

Behavior of ♀

" 30 Swampscott. – The Jeffries Bros. collecting in company with H. A. Purdie took a set of 5 fresh eggs. Purdie has the set.

August Melrose Highlands. – "Nothing this month except a few notes Aug. 3, 4, and 13th." (Torrey, letter Aug. 20/89)

1890

May 13 Cambridge. – Five in or near the Maple Swamp, four in big willows E. end of Brickyard Swamp. In the latter place I twice saw a bird pursue and overtake another and seize him by the feathers of the crest when they flew together, bore down and very swiftly, for fully 100 yds. before separating. In each of these places there were exactly the same number of birds which I found on May 10, 1889 although on that occasion I killed or wounded all but one or two and the places of those killed were not filled that season.

Fighting

Uniform numbers in same places different years 75

Empidonax minimus

1890 Mass.

June 10 Sudbury. — A ♂ singing persistently & apparently established in a very unusual locality — the heart of a solid forest of thickly growing white pines on a high, dry knoll. In the heart of pine woods.

1894

June 9-11 Wareham. During these three days I explored the country about Wareham for miles in every direction. I found the Least Flycatcher decidedly uncommon in cultivated grounds & orchards near the village & about houses but it was very abundant throughout the wild, arid barrens inland, especially in the Plymouth woods — breeding exclusively in pitch pines. In each of the smaller groves there was sure to be at least one pair & the larger groves usually harbored several pairs. We found six or eight nests all built in pitch pines on lateral branches near the main stem & from ten to twenty feet above the ground. Most of these nests were constructed of a material so much lighter in color than the bark of the tree that they were very conspicuous. A beautiful example which I took was not only lined with feathers but covered externally with them.

May 26 Canton. A set of five eggs taken by J. H. Bowles — Set of 5 eggs.

1896 Maine

June 3 Lake Umbagog. At least two pairs were quarreling in the birch grove. They have been there ever since our arrival & are doubtless settled for the summer. I do not find this sps elsewhere about the head of the Lake, except at Leonard's Pond where I heard one this evening.

Copied into Umbagog list

Massachusetts.

Empidonax minimus.

1892.

May. 22. Concord. During the past violent storm and more or less also today the Yellow Warblers, Least Flycatchers, Canadian Warblers, Warbling Vireos and a few other small insectivorous birds have congregated in sheltered places along the river and have resorted to catching flies just above the surface of the water or to picking insects from the half-submerged grass stems perching on snags or low bushes. In some cases I have seen them thus engaged along windy, exposed shores with the plumage drenched & bedraggled by the heavy rain. They have evidently been hard pressed.

Empidonax minimus.

Concord, Mass.
May. 17. 1893.

A fourth species which has appeared this Spring in unusual numbers is the Least Flycatcher. Every apple orchard has its pair or more. I must have seen over twenty to-day

Least
Flycatcher
very
numerous

Empidonax minimus

1895. Mass.

Cambridge – I was at Concord this spring from April 30th to May 7 and hence missed the arrival of the Least Flycatcher which inhabits our garden in Cambridge. He was in full song on the morning of May 8. May 24 I found the nest in the same fork of the same pear tree where this pair nested & reared a brood of young last year. The ♀ was on the nest when I first saw it this year but she did not begin sitting steadily ~~until~~ several days later. On the evening of June 9 I saw her perched on the edge of the nest bending over it in the attitude which birds assume when they have young. The next morning the nest lay on the ground beneath the tree. It was empty & the lining disarranged. The bottom was thickly sprinkled with the white powder which comes from the sprouting plumage of young birds. At the time I supposed that one of the Gray Squirrels which inhabit our lindens had raided the nest but I have since changed my mind in view of what followed. The ♂ Flycatcher had practically ceased singing when this nest was destroyed but he began again on June 11 and for five or six days kept it up incessantly from morning to night. On June 26th I found the second nest, built on the horizontal branch of a tall apple tree near the top & fully 45 ft. above the ground. When I first saw it the ♀ was sitting quietly. An hour later (about 5 P.M.) I heard the Flycatchers making a great outcry and and hurrying to the spot found them engaged in a desperate battle with English Sparrows. There were 8 or 10 of the latter all in the plumage of the ♀ and the majority young birds although two or three were adults. The Sparrows were hopping and flitting from twig to twig moving in a circle around the nest and slowly closing in on it. They kept up a low chattering & at first paid no apparent heed to the fierce onslaughts of the Flycatchers who with shrill cries and incessant clicking of bills kept dashing at the Sparrows occasionally striking one of them with such force as to knock him off his perch and send him fluttering down a few feet through

Empidonax minimus.

1895 Mass.

(No 2) Cambridge – the foliage. This went on for a few minutes during which the Flycatchers prevented the Sparrows from getting nearer than to within three or four feet of the nest. But finally the superior numbers, weight & coolness of the Sparrows began to tell. The Flycatchers were getting tired and discouraged and their attacks became feebler and less frequent. At length they became so utterly exhausted that ~~they~~ were unable to stand erect and stretching themselves out on the dense foliage near the nest with wide opened bills and half spread wings and tails they lay there gasping and ~~trembling~~. The Sparrows had evidently played a waiting game and played it with infinite cunning and patience. Up to this time not one of them had made the slightest attempt to defend himself or to retaliate but had simply dodged when he could and when he could not dodge had received the peck or blow with apparent indifference. Now, however, three or four of the Sparrows – all old birds, I thought – attacked the Flycatchers in a systematic and relentless manner, one bird following another in rapid succession. They quickly drove them away from the nest and finally one of them left the tree and crossing an opening plunged into some dense shrubbery with two Sparrows in close pursuit. Once I thought that one of the Flycatchers had received his death blow for a Sparrow after dealing him several vicious blows on the head clinched with him and brought him fluttering through the leaves nearly to the ground.

Thinking, evidently, that they had effectually disposed of its defenders all the Sparrows now gathered closely about the nest. For a minute or more they contented themselves with inspecting it ~~closely~~ carefully on every side, some perching directly above it, others crowded thickly together

Empidonax minimus

1895 Mass.

(No 3) Cambridge - on the stout branch to which it was attached, cocking their heads first to one side then to the other and regarding it with evident curiosity and interest. At first I thought that they were going to content themselves with this harmless scrutiny but presently they began tearing the nest to pieces, attacking it on every side, pulling out large bill-fulls of the soft grey, hemp-like material of which the outer walls were composed and flinging them out into the air with a spiteful side jerk of the head. Still more threatening was the behavior of one of the old females who alighted on the rim of the nest and bending forward was apparently in the very act of making a downward peck at the eggs or young which it must have contained when, at the critical moment, ~~both~~ of the Flycatchers reappeared and dashing into the middle of the group of Sparrows scattered them in every direction. This attack was so sudden and unexpected that I could not follow it closely but I think the Flycatcher first struck the Sparrow that was perched on the rim of the nest and then assailed the others. The whole party of Sparrows seemed to be panic stricken for they ~~fled~~ made not the slightest resistance but fled ignominiously nor did they afterwards return that evening. As soon as they had disappeared the Flycatcher visited the nest & inspected it carefully on every side finally settling into it. After sitting there a moment ~~she~~ left it & perched on a twig near by where her mate joined her. Both birds were in the tree when I passed it an hour later. They kept perfectly quiet & looked tired & discouraged. The male did not sing this evening as usual.

June 27 Female sitting quietly on her nest all day. Male silent. No Sparrows ventured near.

Birds of Upper St. John.
Batchelder.

66. **Empidonax minimus** *Bd.* Least Flycatcher.—Very abundant in hard woods at Grand Falls. At Fort Fairfield it was rather common.

Bull. N.O.C. 7, July, 1882, p.149

Addendum to List of Birds
Occurring within Few miles of
Point de Monts, Quebec, Canada.
C. Hart Merriam.

152. **Empidonax minimus.**

Bull. N.O.C. 8, Oct. 1883, p. 244.

Summer Bds. Restigouche Valley, N.B.
July, '83. J. Brittain and P. Cox, Jr.

Empidonax minimus. Least Flycatcher.—Common.

Auk, VI. April, 1889. p.117

Summer Birds of Sudbury, Ont.
A. H. Alberger.

467. Least Flycatcher. Common.

O. & O. XV. June, 1890, p.87

Dwight, Summer Birds of
Prince Edward Island.

Empidonax minimus. Least Flycatcher.—A cheerful series of 'che-bécs' greeted me one morning at Souris. It is really easier to distinguish this bird from *traillii* by its notes than by the bird in hand, but the bird in hand is, unfortunately perhaps, a scientific necessity. No others were seen.

Auk X, Jan. 1893. p.10

Allen, Summer Birds Bras d'Or Region

Empidonax minimus.—Not uncommon.

Auk, 8, April, 1891. p. 165

Summer Birds of the Cobalt Mining Region,
Nipissing District, Ontario.
By Frederick C. Hubel. Auk, XXIV. Jan. 1907, p. 50.

30. **Empidonax minimus.** Least Flycatcher.— One adult male taken August 7.

Birds of Toronto, Canada,
by James H. Fleming.
Part II, Land Birds.
Auk XXIV, Jan., 1907, p. 77.

173. **Empidonax minimus.** Least Flycatcher.—Common migrant, May 9 to 24 (May 13 to 29, 1906), August 13 to 27; breeds (June 6, 1897, Carleton West).

Early Appearance of Empidonax minimus at Portland, Maine.—The spring of the year 1888 was a bad season for early arrivals at Portland, most of the earlier birds being very much delayed. Yet some did come early, and I think the most remarkable example was the Least Flycatcher (*Empidonax minimus*). Previously its earliest recorded arrival was May 5 (N. C. Brown, Proc. Port. Soc. Nat. Hist., 1882, p. 12), but on the morning of May 2, 1888, a chilly day with the thermometer only 36° Fahrenheit, and snow falling steadily, I saw one in a large orchard inside the city limits.—John C. Brown, *Portland, Maine.*

Auk, VI. Jan., 1889. p. 71.

Empidonax minimus – [illegible] Wolfeboro, N. H. June. 17-1887.

Empidonax minimus Wolfeboro, N. H. June. 18-188

Birds Obsvd. near Holderness, N.H
June 4-12, '85, and 4-11, '86. W. Faxon

18. Empidonax minimus. LEAST FLYCATCHER.—Common.

Auk, V. April, 1888. p.150

Bds. Obs. in Franconia, N.H. June 11-21
'86, and June 4-Aug. 1, '87. W. Faxon

22. Empidonax minimus. LEAST FLYCATCHER.—Common.

Auk, V. April, 1888. p.151

Birds Obs. at Bridgewater, N.H.
July 12-Sept. 4, 1883. F.H. Allen

Empidonax minimus.—Quite common.

Auk, VI. Jan., 1889. p. 77

Birds Obs. at Moultonboro, N.H.
July 21-Aug. 11, 1883. F.H. Allen

Empidonax minimus.—Not common.

Auk, VI. Jan., 1889. p. 78

Birds of Hillsboro Co. N. H. June 27, '92
Arthur M. Farmer, Amoskeag, N. H.

Least Flycatcher, fairly common.

O. & O Vol. 17, Sept. 1892 p. 136

Breezy Point, Warren, N.H.

1894. Empidonax minimus

May 15^{1} 19^{2} 20^{4} 21^{5} 23^{4} 24.

22^{4} [illegible]

[illegible]

Breezy Point, Warren, N.H.

1895. Empidonax minimus

May

27^{4} [illegible] 31^{4}

June 4. 7^{2}

Summer Bds, Mt. Mansfield, Vt.

25. **Empidonax minimus.** Least Flycatcher. — Common; their sharp notes were frequently heard at various points in Stowe Valley.

by Arthur H. Howell. Auk, XVIII, Oct., 1901, p. 341.

E. Mass. 1885. (8) Com. sw Sw. brook

80 Empidonax minimus.— June 12, 16; July 17

Princeton & Rutland, Mass. Aug. 2-1885

28 Empidonax min.— A single brood of young

00 Princeton & No. Rutland, Mass. June, ~~10~~ 1886.

41. Empidonax minimus. Two or three

Mass (Winchendon)

1887

June 25^{2} - 26^{3}

Empidonax minimus

Mass. (near Concord).

1887

May 6^{2} - 8^{6} - 9^{20} - 10^{4} - $\overset{*}{16}^{6}$ - $\overset{*}{22}^{4}$ - $\overset{*}{23}^{6}$ - 26^{15}

June 2^{4} - 4^{6} - 6^{4} - 7^{4} - 16^{4} - 17^{4}

July 7^{2} - 15^{1}

Aug. 13 {1 single bird along river / 1 brood young pine woods. < 15^{1}

* flight song.

Empidonax minimus

1887 Cambridge, Mass.

May 6. Two singing che-bec.

Empidonax minimus

Emp. min 12^{4} 13^{2} - 15^{2} - 18^{1} Winchendon, Mass. June, 1888.

1888. Least Flycatcher. S. W. Denton.

June 2. Abundant this year. Have taken one set of 4 eggs containing 1 egg of Cow Bird. I removed the Cow Bird's egg when there was only 2 Flycatchers eggs in nest and they then laid two more. May 30. I know of 4 nests ~~one~~ 3 are in upright forks of small trees. one in fork of horizontal limb of Oak. Nests of this species can be found when leaves are only partly out by hearing the (che-bec's) of the ♂ and searching the forks of the small trees near by, as they do not go far from nest.

1889. *Empidonax minimus.* Wellesley, Mass.

May 3. 3 7. 2 heard 5 8 1. 9. 2 ♂ ♀ shot 10. nest building

S. W. Denton.

W. Middlesex Co. Mass.
June 25-30, 1889.

Empidonax minimus

West Townsend, Ashby--- Common and generally distributed throughout the cleared portions of the country, but nowhere very numerous. Seen most frequently in apple orchards near villages and farm houses. None met with on Mt Watatic.

Birds of Bristol County, Mass.
F. W. Andros.

Empidonax minimus Baird, Least Flycatcher. Summer resident, common. Breeds.

O. & O. XII. Sept. 1887 p. 139

Birds Known to Pass Breeding Season
nr. Winchendon, Mass. Wm. Brewster

26. Empidonax minimus.

Auk, V, Oct., 1888. p. 389

Bds. Obs. near Sheffield, Berkshire
Cy, Mass. June 17-26, '88. W. Faxon

20. Empidonax minimus. LEAST FLYCATCHER.—Abundant.

Auk, VI. Jan., 1889. p. 44

Bds. Obs. near Graylock Mt. Berkshire
Co. Mass. June 28 - July 16. W. Faxon

19. Empidonax minimus. LEAST FLYCATCHER.—Not very common. Found chiefly in the farming lands.

Auk, VI. April, 1889. p. 100

Some Massachusetts Records of Interest.— During the past year I have noted several birds of some interest in this region.

Late fall migrants, 1904, include:

Empidonax minimus, Chebec, Concord Turnpike, Lexington, Oct. 2, one.

Dendroica maculosa, Magnolia Warbler, Waltham, Oct. 9, one.

Dendroica striata, Blackpoll Warbler, Cambridge, Nov. 7, one.

An interesting winter record is *Euphagus carolinus*, Rusty Blackbird, Concord Turnpike, Concord, Jan. 22, 1905, one.

Early spring migrants, 1905, include:

Butorides virescens, Green Heron, Charles River, Needham, Apr. 9, one.

Zonotrichia leucophrys, White-crowned Sparrow, Hobb's Brook, Lexington, May 4, one.

Coccyzus erythrophthalmus, Black-billed Cuckoo, Rock Meadow, Belmont, May 4, one.

Other records of interest, 1905:

Oidemia deglandi, White-winged Scoter, one male, Arlington, Spy Pond, May 9.

Bartramia longicauda, Bartramian Sandpiper, Ipswich River, North Reading, May 13, one.

Icterus spurius, Orchard Oriole, Ipswich, May 28, one male.

Vireo noveboracensis, White-eyed Vireo, Ipswich River, South Middleton, June 9, one.— ARTHUR C. COMEY, *Cambridge, Mass.*

Auk, XXII, Oct., 1905, P. 420.

Connecticut, June. 1893.

Empidonax minimus

June 3^{4}_{*}. 4^{6}_{*} Fairfield

" 5^{2}_{*}. 6^{2}_{*} 7^{2}_{*}. 8^{2} (♀ on nest) 10^{2}_{*}. 11^{1}_{*}
12^{3}_{*} 13^{4}_{*}. } Saybrook
" 14^{1}_{*} 16^{2}_{*} 18^{1}_{*} 19^{1}_{*}. 20^{1}_{*}

" 21^{3}_{*} 22^{2}_{*} - 23^{3}_{*} 24^{7}_{*} - 25^{3}_{*} Andover

Decidedly less numerous than about Arlington & Belmont, Mass. Confined very strictly to the apple orchards but the only nest seen was built on the horizontal branch of an oak over a public road. An apple orchard was near at hand, however. We found this species in the greatest numbers near Bolton Notch. None were seen on the marsh islands at the mouth of the Connecticut.

Birds observed in Naval Hospital Grounds, Brooklyn. G. H. Coues

14. **Empidonax minimus.** Least Flycatcher. — Common; breeds.

Bull. N. O. C. 4, Jan., 1879, p. 31

Birds of the Adirondack Region. C. H. Merriam.

97. **Empidonax minimus**, *Baird.* Least Flycatcher.—Common summer resident, generally breeding in hard timber.

Bull. N. O. C. 6, Oct, 1881, p. 231

Arrivals of Mig'y Birds, Spring-1886, Central Park, N. Y. City. A. G. Paine, Jr.

May 11, *Empidonax minimus*, (467). Least-Flycatcher.

O. & O. XI. Aug. 1886. p. 125

Correspondence

But the most amusing of all to me is a certain performance of the Least Flycatcher which I have noticed several times at "dead of night" as I did a few nights since. It was about 11 P.M. and I was walking up a shaded street on my way home. It was very dark and not a sound was to be heard save my own footfalls. Suddenly from the top of a tree overhead came a quick, emphatic "che-beek." The tone of it was such as to express a sudden awakening from profound sleep,—a tone which might easily be imagined to express, "Oh, dear! what made you wake me up?" I have heard this same utterance several times. It is the usual day-time note, with a tone of surprise and sleepiness added, which renders it very amusing. I think we ornithologists, as a rule, ought to tread lightly at night for there is no knowing whose slumbers we may disturb.

Medina, N. Y. Neil F. Posson

O. & O. XIV. Aug. 1889 p. 126-127

Notes on the Spring Migration of Birds in the Northern Adirondacks [Axton], New York [1901].
May 5 to 10.

Least Flycatcher. Not common.

E. A. Sterling, Brooklyn, Pa.
Auk, XIX, July 1902, p. 299.

Descriptions of First Plumage of Certain North Am. Bbs. Wm. Brewster.

88. Empidonax minimus.

First plumage: male. Similar to the adult, but with a stronger olive cast, and a faintly indicated collar of ashy-brown across the nape. Wing-bands light reddish-brown. Beneath almost precisely similar to the adult, with perhaps a slightly stronger yellowish cast upon the abdomen and crissum. Distinguishable from *E. trailli* and *E. acadicus* in corresponding stages by the decidedly paler and less yellowish under parts; especially by the nearly clear ashy on the sides of the breast. From a specimen in my collection taken at Cambridge, Mass., July 2, 1872. Other specimens in first plumage before me differ little from the one above described, but *autumnal specimens*, singularly enough, are much yellower below and more olivaceous above.

Bull. N.O.C. 3, Oct., 1878, p. 178.

Mass. (Concord) Empidonax minimus

1886 Song flights

June 10 The Least Pewee breeding in our orchard took *two* song flights this evening. It rose in a spiral to about 100 feet calling *whit*, *whit* as it ascended then ~~flew~~ described nearly a complete and large circle flying somewhat unsteadily & crying *che-lat*, *che-lat* incessantly, some ten or twelve times. The performance ended by its closing its wings and dropping like a stone down to the orchard beneath. It was nearly dark at the second repetition.

Mass. (Cambridge) Empidonax minimus

1888. Young uttering *che-bee* note.

July 23 One of a brood of several young in our garden repeatedly uttered the *che-bee* in a soft, lisping tone making it sound more like the *tl-ip* of *C. henslowi*. I am *sure* the bird was a young one; in fact it was evidently only a few days from the nest.

The Singing of Birds. E. P. Bicknell.

Empidonax minimus. Least Flycatcher.

Silence comes earlier to this species than to almost any other of our summer birds; but where I have found this to be true is near the southern limit of the bird's summer range, and it is not unlikely that it has somewhat different habits of song further within the area of its distribution.

In some years I have missed its note after the last days of June, and my latest date, July 20, is isolated in my record, the nearest approaches to it being July 12 and 14.

Auk, 2, July, 1885. p. 256.

A SPOTTED EGG OF EMPIDONAX MINIMUS. — [The following note, communicated to me by Mr. Hayward, seems of sufficient interest to merit publication. I have examined the egg in question, and there is apparently no reason to doubt its correct identification. Save for the reddish-brown dotting it is quite typical of *E. minimus*, and not for a moment to be compared with the eggs of either *E. traillii* or *acadicus*. I have never seen a spotted egg of the Least Flycatcher before. — W. BREWSTER.]

Last spring, during the month of May, while collecting eggs at Milton, Mass., I found a nest of this species in the forks of an apple-tree about fifteen feet from the ground, containing four eggs, three of which were of the usual color, but the fourth, of the same ground-color, was minutely marked with fine dots of reddish-brown. The spots are irregularly dispersed over the surface of the egg, and while numerous on one side are few on the other. The egg measures .63 × .50 of an inch. The nest was like others of this species, and the bird had the well-known note of *chebéc*. — R. HAYWARD, *Boston*, ~~Mass.~~ Bull. N.O.C. 4, April, 1879, p. 124.

Notes from Maine.
John L. Goodale. Saco, Me.

June 10, On this day I also got a set of Least Flycatchers with *six* eggs in it. The nest was, if anything, a little smaller than usual and the eggs were almost crowded as they lay in it. I never before heard of a set with more than four in it.

O. & O. Vol. 18, Sept. 1893 p. 129

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367. *Another Spotted Egg of Empidonax minimus.* By R. Hayward. *Ibid.*, p. 26.—One of a set of three eggs, found at Marblehead, Mass., July, 1880, had "a ring of light brown spots at the larger end."

Quar. Jour, Bos, Zool. Soc. I

Empidonax minimus

Breeding habits

Readville, Mass. June 11, 1882

I found a Least Flycatcher's nest to-day in an apple orchard on the Hayward place. The female was sitting and at frequent intervals - about once each two minutes - the ♂ came with an insect and fed her, on the nest, she receiving him with a tender twittering. I have never seen this done before by any member of the genus.

The nest, shortly afterwards, was destroyed by squirrels, and the birds built another in an adjoining tree. On June 18th the ♀ was again sitting but the male did not come to her while I remained in the vicinity. This second nest with four eggs is in my cabinet.

On June 23rd a ♂ of this species sang almost without cessation, for over three hours. During this time he did not once leave his perch – the dead twig of a cherry-tree – and he scarcely changed his position or even moved in any way. Indeed with one or two brief intervals of rest, he sang there from seven o'clock until noon

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Quar. Jour. Bos. Zool. Soc. I

Destruction of Bird Life by the Cold Wave
of May 21-22, 1882.
Empidonax minimus: See under
Helminthophila peregrina.
Bull. N.O.C. 7, July, 1882, 185.

Middlesex Co., Mass. — Empidonax minimus

1884

Aug. 18 Heard one in our lindens (Cambridge).

" 20 Shot a young ♀, moulting, & inter first & fall pls., on the Coolidge farm (Watertown). It was in the top of a tall white oak on French's hill in company with a few Warblers.

" 23 Saw one among cedars (Watertown)

Sept. 1 Shot one, a young bird, moulting, among oaks (Watertown)

" 2 Heard one distinctly in our lindens (Cambridge)

Trochilus
colubris

Trochilus colubris.

w.t = white-throated birds, ♀ or young.

1889

May B. 26² (F. Bolles) Swampscott 30 nest 2 eggs (Jeffries Bros.) 1889. Wel. 12 2♂ (Den.) – Wm 16 1♂ C. 19¹ (Batchelder) – B. 29 1♀ – Brookline 2 1♂ (C. E. Faxon) 1890

June Cd. 3 1♀ 1889. Arnold Arboretum Brookline 4 ③ (C. E. Faxon) – Cg. 8¹ (Den?) S. 10 1♂. – Cg. 10 (Denton) – Swampscott ♀ and nest 13 – 14 – 15 – 1890

July Cg. 9 1♀ – Cg. 13¹ – Cg. 18¹ – Cg. 19¹ – Cg. 20¹ – Cg. 22¹ – Cg. 23¹ – Cg. 24¹ – Cg. 25¹ – Cg. 26² – Cg. 27¹ – Cg. 29² Cg. 30 2 shot 1889.

Aug Cg. 1¹ – Cg. 8¹ – Cg. 9¹ – Cg. 11¹ – Cg. 12¹ – Cg. 16¹ – Cg. 17¹ – Cg. 18¹ – Cg. 27¹ – Cs. 28¹ 1889.

Sept "Cg. 10¹ – Cg. 13¹ – 18¹ Another seen about Sept. 25, date not recorded" (All records on this line by J. W. Denton) 1889

" Cg. 4 (Den.) – Cg. 6 1 w.t. – Cg. 8 1 w.t. (Den.) – Cg. 9 1 w.t. – Cg. 11 1 w.t. – Cg. 14¹ – Cg. 16 1 w.t. – Cg. 17 1 w.t. – Cg. 27¹ (Denton) – 1890 Concord 11¹ Wellesley 18¹ Denton 1892 Cg. 15¹ 1893

May Cg. 16¹ 1899.

May Martha's Vineyard 11¹ 12 1♂ Fox Cd. 23¹ – Wellesley Hills 28 ♀¹ nest ♀ egg (Fox) 1891 1891

11¹ 12 1♂ – 15¹ 16¹ – 18 2♂ ♀ – 19¹ – 20² – 21♂ – 23♀ Concord ? 1892

Cg. 11 (♂♀) (Denton) C. 9² (Hoff) 12 (Geo Butt.) 13 1♂ – 14 (♂♀) ♂ – 16 3♂♂ [Cg. 17 2♂♂ E. Lex. 18¹] 18 (5 or 6) (Geo Buttrick) 20¹ – 22 (2♀♀) Lincoln [24¹] Concord 1893.

7 ♂ 2♂ Cd. Wal. (N.B.) (W. Denton) Cg. 8¹ – Cg. 10¹ – Cg. 20¹ – Cg. 21♂ Cg. 24♂ Cg. 25♂ Cg. 27 ♂ad 1895 Cg. 30 ♂ad at flowers of pink horsechestnut. 1894

Cg. 5♂ 4? 7 Concord. 19¹ 20♀ 22¹ 30¹ 1898 Cd. 7 Marion Keyes Cg. 16¹ at pink h. chestnut Davis Hill 20¹ Ball's H. 21♂ (at high blueberry blossoms) Concord Davis Hill 24♂ D.H. 25¹ D.H. 26¹ D.H. 27¹ Keyes 28¹ Hen. B.H. 30♂ B.H. 31♂

June Cg. 28 (♂♀) – 1891. Concord 16♀ – 18♀ 1892

" Cg. 1 ♂ad (Pink H. Chestnut) Cg. 2 ♂ad (do.) Cg. 6 ♂ad (do.) Cg. 12 ♂ad (do) Cg. 13 ♂ad (do) Wareham 10 ♂ad. 1894

Cambridge garden 1 to 8 ♂ daily ♀ several times 9♂ 10♂ – 12♂ 22♀ 23 2♂ 27♂ 28♂ 1895

Cg. 1 ♂ad 1896 Ball's Hill 2♂ Cg. 29 ♂ad 1898 1¹ W.D. 6♀, 10♀ W.D. Our garden, Cambridge. 1899.

July Fal. 6 1 h. (Fox) Cg. 9² (1♀) – Cg. 11 1 ad ♂ 2 w.t. – M.V. 20 1 w.t. – Cg. 23 1 ad ♂ 2 w.t. – Cg. 24 2 w.t. – Cg. 25 2 w.t. – Cg. 26 2 w.t. – Cg. 27 2 w.t. – M.V. 29¹ 1890 Concord 28¹ – 29¹ – 31¹ 1892

" Cg. 8♀ Milton 9♀ 10♀ Cg. 11♀ Cg. 25 3♀♀ Cg. 26 3♀♀ 24¹ – 25¹ – 26 ♂ad. 30² young – Concord 1893.

" Cambridge garden 2 ♂ad 3 ♂ad 4 ♂ad 5 ♂ad 6 ♂ad 7 ♂ad 10 ♂ad 11 ♂ad 14¹ 16¹ 17 ♂ad 19 (♂ ♀ adlts) ♂ 2 ♀ 21 ♂ad 23 (♂ad ♀") ♂ 2 24 ♂ad 25 1 w.t 26 ♂ad 1894

– Cg. 3 ♂ad Cg. 9 ♂ad Cg. 10 ♂ad Cg. 11 ♂ad 1895 Cg. 10¹ 1899.

Aug Cg. 6 1 w.t. – Cg. 8 1 w.t. – Fal. 10¹ – Cg. 11 2 w.t. – Cg. 12 1 w.t. – Cg. 13 1 w.t. – Cg. 14 1 w.t. – Fal. 24 1 w.t. 1890 Cambridge (garden) 1♀ 15 2♀ 23 2♀ Cd. 27 1893

" Concord 30¹ 31¹ 1892 Concord. 27¹ – 1893 1892

" Cambridge garden 1 w.t 3 2 w.t. 4¹ w.t. 9¹ w.t C.S. 10 ha. 1894

" Fal. 4 1 juv Cg 5 ♂ad Cg. 7 ♂ad Cg 8 1 w.t Cg 9 4 w.t. Cg. 10 2 w.t Cg. 13 1 w.t Cg. 20 2 w.t. Cg 21 2 w.t. Cg 22 1 ♂ad 2 w.t. Cg 23 2 w.t Cg. 24 2 w.t. Cg 25 2 w.t Cg 26 3 w.t 1895

Cg. 1¹ juv Cg. 2² juv, 1 ad ♂ – Cg. 3 1 ♂ad 1 w.t. Cg. 5 1 w.t 1896 Cg. 18¹ Cg. 19¹ Cg. 20 1 juv Cg. 27¹ Cg. 30¹ 1897 Cg 18 numerous 1898

Sept 2¹ – 8¹ Concord 1893

Trochilus colubris

1889 Mass.

May 26 Arlington Heights. – Bolles saw two to-day in beds of columbine on a rocky knoll. They are the only Hummers that I have heard of this season in Middlesex County. They may have been migrants but the season is very early and most of our local birds breeding now.

Two in Arlington feeding on columbine

" 30 Swampscott. – The Jeffries Bros. in company with H. A. Purdie took a nest and two eggs to-day

Nest, 2 eggs.

June 3 Concord. – A ♀ flew into the kitchen at the Manse and was captured and sent alive to me. It died, however, on the way to Cambridge. The belly was bare in the center but showed no signs of the ~~wrinkled~~ condition common to most birds when incubating. On skinning the bird found an egg of full size and enveloped in a soft shell, in the oviduct. One egg had apparently been laid.

Distribution

Laying

" Swampscott. – The Jeffries Bros. took a second set (2 eggs) by the same birds robbed May 30th.

Laying a second set.

July 8 Cambridge. The trumpet flower at 61 Sparks St. ~~had~~ fifty or more blossoms fully expanded to-day but I watched it for some time about sunset without seeing a single Hummer. The vegetation is much in advance of average seasons this year.

Trumpet flower out but no Hummers

" 9 The first Hummer in my garden to-day at the showy crimson blossoms of Pentstemon. The bird was a ♀ or young ♂ and looked very large.

Arrival

" 13 One at trumpet vine (61 Sparks St.) this morning. Did not see it distinctly enough to make out sex

" 18 One (a white throated bird) feeding at a bed of phlox in my garden. Have visited the trumpet vine several times daily but have seen no Hummer there since the 13th.

98

h. p. 119

Trochilus colubris

1889 Mass.

July 18 Cambridge - At least two in my garden this afternoon.

One had a bright yellow patch in the middle of crown very much as in Regulus satrapa. This was probably yellow pollen from some flower. These hummers visited in turn Pentstemon barbatus, Phlox, some large double ~~hollyhocks~~ dahlias (both yellow & red), Larkspur (blue), Turks' cap lilies, and trumpet flower taking them in the order named. I cannot understand why they neglect the trumpet flower to this season. I visited the one at 61 Sparks St. to-day five or six times without seeing a single Hummer there. Of the flowers above named they evidently prefer Pentstemon and next to this Phlox.

Yellow crown patch

Favorite flowers

Neglect of trumpet flower

One of the birds seen this afternoon perched on a dahlia leaf directly in front of the flower and sitting there at ease with wings closed deliberately probed the flower with its bill precisely as it would have done if poised in front of it. This same bird after feeding at flowers for fifteen or twenty minutes alighted on the top strand of a wire fence and began catching small, gauzy-winged flies almost precisely in the manner of an Empidonax darting upward & outward at an angle of about 45 deg. and after securing its prey turning sharply and gliding back to the precise spot from whence it started. Through a good glass at a distance of perhaps 30 ft. I could distinctly see the flies although they were very small. Sometimes the little bird missed its first stroke when it would poise a moment & immediately make another dash.

Feeding while perching in front of flowers

Catching flies

When perched this Hummer frequently jerks its tail upward and twitches its wings nervously. It also bobs it head up & down something like a Sparrow Hawk. It usually sits with its feathers ruffled or raised - a tiny little fluff, alert, animated, curiously like some of the larger birds (especially Tachycineta bicolor) in general bearing. It rarely remains perched more than a few minutes then darts off to its flower pasture again.

Perching attitudes

To 123

Trochilus colubris

1889 Mass.

July 24 Cambridge. For about a week past there has been a Hummer constantly in my garden, the same bird, I suspect, for during this time I have never seen two at once, since the 18th. This bird (or birds) prefers phlox and Pentstemon still but visits nearly every flower I have including scarlet runners and tiger lilies. He seems particularly fond of prince's feather.

Of late he has developed a strong bullying tendency. To-day he spent most of his time in chasing English Sparrows watching for them, from a dead twig, just as a Falcon might do and charging after every one that crossed the garden. When overtaken, as they always were after a chase of a few rods, they would usually take refuge in some leafy tree top when the Hummer would poise above the spot, his wings buzzing like an angry bee's. If the Sparrow tried to steal off he was sure to detect the move and force him to cover again. I am sorry to say that he did not confine his attentions to the Sparrows but also chased several Warblers one of which, a Mniotilta varia, he "treed" in the top of a lilac keeping him there several minutes. Bullying larger birds

The Hummingbirds flight varies exceedingly at different times. When the bird is migrating or crossing a wide open space, as a pond or river, it is straight but performed in long, sweeping vertical curves or undulations. When he is flying from one bed of flowers to the next or pursuing some bird it is as straight and level as the flight of a bullet. At times ~~when~~ the bird, apparently in play or from excess of spirits, indulges in a peculiar slow descent on a long slant his wings buzzing less rapidly than usual and in a feeble fluttering way giving him much the appearance of a huge May fly. Flight

F.p. 125

" 26 Another with a bright golden crown. Shot it & found that the yellow was merely pollen dust, most of which shook off when the bird fell. With yellow crown 100

Trochilus colubris

1889 Mass.

July 30 Cambridge.— For the past week I have seen Hummers daily in my garden, rarely more than one at a time, never more than two. All seen thus far have been white-throated. Sometimes a bird after making the rounds of the flower beds would perch on a tree or bush, rest a few minutes and then return to its feast but usually it would dart off out of sight over the trees. I have thought that perhaps there was a steady flight of migrants passing each day for after the departure of a bird rarely more than ten minutes would elapse before another appeared. To-day, however, I shot two at noon and no others were afterwards seen in the garden during the afternoon. Hence it is probable that these two ~~had~~ settled in the neighborhood and made the rounds of several gardens in regular succession. They rarely fed in one place over three or four minutes.

Habits

Hummers are very jealous and quarrelsome. A bird feeding at my flowers invariably attacks ~~another~~ any other that appears when the two go whirling off with shrill squeaking chirps. Presently the victor returns & resumes his feast. I saw one to-day dive down many times over a cluster of lilacs always following the same course but swinging forward & back like a pendulum. It did not utter the peculiar note heard from the bird at Stoneham years ago but otherwise its behavior was similar. There were some Yellow Warblers in these lilacs but I could not discover anything else.

Quarrelsome disposition

Diving down over a Yellow Warbler

August Melrose Highlands.— "I have noted seven this month" (Torrey let Aug 20) Melrose Highlands

Trochilus colubris

1889 Mass.

Aug. 27 Cambridge. – As I was standing within two feet of a clump of Larkspur in my garden a Hummer came and proceeded to take all the blossoms in order after the usual manner. More than once it was literally within reach of my hand but as I stood perfectly motionless it did not seem to notice me. Its wings made the usual dusky haze. Their tips, as I could distinctly see, approached each other over the back within about 1 3/4 inches their bases within less than 1 inch perhaps about 3/4 of an inch. On the downward strokes the tips came within about the same distance of one another but the bases of course not nearly as close together as on the upward stroke. I could plainly see the muscles on the sides of the back work incessantly. Whenever a bee approached the bird it darted at and drove it off. It had the feathers of the crown streaked with yellow pollen. — Flight &c. — Attacking humble bees.

" 28 One in the "Maple Swamp" feeding among the blossoms of Impatiens fulva. — Feeding on Impatiens

1890

May 11 Wellesley. – Two ♂♂ seen by S. W. Denton about flowers of Pyrus japonica

" 16 Waltham. – A ♂ among cedars; poised in front of several cedar apple "blossoms"

" 19 Cambridge. – One seen by Batchelder in his garden.

" 29 Belmont. – A ♀ among wild apple trees in a deep, densely-shaded glen near a spring. She kept buzzing about like a big humble bee alighting usually on dead branches. Twice she darted down over my head passing within 8 ft. I think she had a nest on one of the moss ~~grown~~ dead branches of a certain apple tree but could not find it. — ♀ probably with nest.

" 25.30 Swampscott. – W. A. Jeffries has taken two nests. One contained one egg May 25th and two eggs the next day. The other nest had two fresh eggs on May 30th. One of these nests was in a cedar. — Nests

Trochilus colubris

1890 Mass.

June 10 Sudbury.- One in dry white pine woods near Wayside Inn, unseen but apparently darting from place to place over our heads buzzing like an angry bee and chirruping shrilly. Somehow we could not get our eyes on it although we heard it many times. There were many mossy dead limbs in the trees & it doubtless had a nest on one of them.

" 13 Swampscott.- Jeffries showed me a nest on their place in an unusual position - in an elm over the driveway at a height of about 35 ft. built on a smooth twig not over 1/2 inch in diameter, the branch alive & without moss or lichens. The bird invariably left the nest when we came in sight of the tree or at fully 50 yds. When we stood under it she flew restlessly about alighting on dead twigs & flirting her wings & tail nervously. She did not buzz or squeak or dart down past our heads.

Nest in unusual position

July 25 Cambridge.- For the past three days a small white-throated bird has monopolized my flower garden driving away all other Hummers that attempted to feed among the flowers. As there were several constantly trying to trespass the little bully had its hands full. The intruders would often try to steal in unobserved, approaching under cover of some large bush and beginning to feed on the under side of a cluster of flowers but even when they were wholly sheltered the monopolist would detect their presence, perhaps by the sound of their wings. Then there would be a sudden dash and a quick retreat accompanied by much shrill chirruping from both pursuer & pursued. Invariably the trespasser gave way and fled without the slightest show of resistance until this morning when a large white-throated bird, evidently a new comer, appeared on the scene. This bird was at once attacked but refused to yield and a desperate fight ensued

One bird monopolizing a flower garden

#2 Trochilus colubris

1890 Mass.

(July 26 Cambridge) The two birds would mount straight upward, fighting facing one another, their bills nearly touching, each apparently trying to get above the other. The moment one succeeded in this he would swoop at the other who would turn and drop nearly to the ground often turning upward again at the last moment and evidently try to impale his antagonist, who in turn tried to impale him. It was a fencing match with naked points and was fought throughout with the utmost fury and determination on both sides, passes and counter passes succeeding one another ~~so~~ most rapidly. ~~[illegible]~~ Immediately after each descent the birds mounted together again rising usually to a height of about 20 ft. They often struck each others wings making a slight rattling sound and twice closed and came quite to earth together once striking a gravel walk and once falling into the middle of a bush where they buzzed a moment like dizzy bumble bees before they could get clear of the foliage. I did not see that either was seriously injured although there were several very narrow escapes from impalement on both sides. The battle lasted about five minutes and ended in a "draw" both combatants being evidently exhausted and separating, as if by mutual consent, to rest awhile on perches a few yards apart. At the end of a few minutes respite the larger bird suddenly shot off out of sight leaving the plucky little one master of the field as before, but ~~the~~ Hummer, presumably the same, soon returned and was allowed to feed unmolested by the "monopolist".

I find that most of these Hummers show the feet hanging down Show feet just below the feathers while feeding but with one to-day the feet while feeding were concealed.

Trochilus colubris

1890 Mass.

July 27 Cambridge. – Faxon tells me that someone (an English writer I think he said) has asserted that Hummers cannot fly backwards. This is positively a mistake as I satisfied myself by watching one to-day. The bird on withdrawing from a flower almost invariably moved directly backward for four to six inches before approaching another flower.

Flying backward

The Hummers in my garden often alight in the mouths of the trumpet flowers. I have also just seen one alight on a string drawn taut around a bunch of Penstemon where it sat at ease with closed wings thrusting its bill into all the flowers within its reach. As last year I have seen birds with patches of golden pollen on the crown.

Alighting to feed

With golden crowns.

Sept 11 Hummers still seen in my garden almost daily all white throated birds. Unlike those which came in July and early August they do not stay long in fact rarely more than ten or fifteen minutes. They are devoting themselves now to the nasturtiums. I saw one try a sun-flower to-day but he soon gave it up in apparent disgust.

In Sept.

— Martha's Vineyard. Mr. Howard Norris of Cottage City has taken a single nest & eggs on the island. He does not think that the bird is at all rare in summer.

Distribution in breeding season.

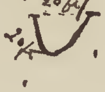
1894

July 24 Cambridge. – At least two pairs of Hummers must have bred in Cambridge this season for ~~I have~~ one of my neighbors cats killed two birds in June and an adult male has frequented my flower beds constantly for the past seven weeks. I saw him in the garden to-day. ~~Within~~ During the past two weeks I have also seen ~~white~~-bellied birds either females or young occasionally but I doubt if the migration has arrived as yet.

Breeding in Cambridge.

Trochilus colubris.

1892 Mass.

June 28 Cambridge. – Visiting Cambridge to-day I found the larkspurs in my garden in full bloom. I asked my gardener (George) if he had seen any Hummingbirds and he replied that one was in the garden on the 25th. This evening, a little while before sunset, I heard one squeaking incessantly & excitedly and presently saw the bird, a male, going through the curious courtship(?) performance over my little vineyard. Starting at a height of about 20 ft. it darted ~~downward~~ a steep incline and just brushing the upper leaves of the vines rose again at about the same angle and to the same height on the opposite side then, ~~turning~~ after the slightest possible pause, turned abruptly and retraced its course, repeating this half a dozen times or more. The movement was not unlike that of a pendulum but the "dip" was much deeper, thus: 

While thus engaged it ~~uttered~~ squeaked incessantly and in shriller, more wiry tones than on ordinary occasions. The sound reminded me of the squeaking ~~of~~ which Shrews make when fighting or mating but it was much more rapid and continuous. I did not see the female at first (she was doubtless concealed among the grape leaves) but presently she appeared and joined her mate among the larkspur flowers where both spent ten minutes or more getting their evening meal. While thus engaged they frequently poised in front of flowers only a few inches apart and pursued their quest for food in apparent harmony neither showing any irritation or resentment when the other approached it closely – a rare occurrence I believe although probably the rule with mated birds. They went off finally together, one following the other closely but I could not make out which of the two sexes took the lead.

I have seen Hummingbirds on only three previous occasions this month. A female at Concord, June 22nd feeding at Iris flowers another ♀ (perhaps the same) in same meadow on the 23rd, and a bird whose sex I did not determine about nasturtiums at Milton on the 25th.

Court. flight

106

Massachusetts. *Trochilus colubris.*

1892.

June 24-29 Cambridge. Returned to Cambridge on the 28th. That evening a little before sunset I saw a pair of Hummingbirds in my garden feeding together at the Larkspurs. The male rose and dived down over the female several times in succession when she had settled on one of the grapevines (See. Syst. notes)

Sept 11 Concord. To Ball's Hill at 3 P.M. ++ On the way down I saw nothing of much interest except a Humming-bird, which flew across the river and kept straight on southward over the Great Meadow leading me to suspect that it was migrating.

Trochilus colubris

Concord, Mass. May, 13. 1893.

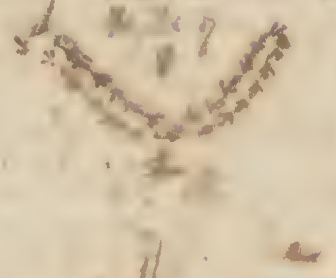
At the [illegible] I saw a Humming bird in the cherry tree now in full bloom. The family tell me that [illegible] humming birds appeared in these trees yesterday.

Arrival of Hummingbird.

Concord, Mass. May, 14. 1893.

Early this morning I saw a pair of Hummingbirds in our blooming cherry tree. [illegible] with [illegible] the female [illegible] apple tree above. The male rising to about [illegible] above her began darting down and back & forth tracing [illegible] in the air at the end of each [illegible] which was like the swing of a pendulum only [illegible] thus:

Hummingbird courting its mate



The male [illegible] up [illegible] incessant shrill chirping. He did not touch or very closely approach the female & finally flew away.

Concord, Mass. May, 17. 1893.

It is also a remarkable year for Hummingbirds. [illegible] garden in Cambridge was fairly alive with them this afternoon, fighting & squeaking among the blossoming cherry & pear trees. Mr. [illegible] showed me the skins of two (♂ & ♀) that flew into the museum on the 16th & died there that day.

Many [illegible] Hummingbirds

Concord, Mass. May, 22. 1893.

At about sunset I saw two female Hummingbirds in the horse chestnut at the Buttricks feeding at its blossoms and quarreling, as do the males, for exclusive possession of the tree.

Hummingbirds at blossoming horsechestnut

Trochilus colubris

1896. **Penobscot Bay, Maine.**

Deer Island. July 18. One seen by Mr. & Mrs Conway at the Emersons' flower bed.

Birds of Upper St. John.
Batchelder.

70. **Trochilus colubris** *Linn.* Ruby-throated Hummingbird.—Common at Grand Falls. At Fort Fairfield it was apparently rather common—we saw several.

Bull. N.O.O. 7, July, 1882, p. 150

Ornithological Trip to St. Bruno, P.Q.
May 25, 1885. E. D. Wintle, Montreal.

Ruby-throated Hummingbird. Only saw one.

O. & O. XI. May. 1886. p. 75

Summer Birds of Sudbury, Ont.
A. H. Alberger.

428. Ruby-throated Hummingbird. Saw one August 9th.

O. & O. XV. June, 1890, p. 87

Dwight, Summer Birds of
Prince Edward Island.

Trochilus colubris. Ruby-throated Hummingbird—Not observed, but undoubtedly occurs. Prof. Earle showed me stuffed specimens.

Auk X, Jan, 1893. p. ~~[illegible]~~ 9.

General Notes.

Notes on Cape Breton Summer Birds.
Francis H. Allen.

Trochilus colubris. This is another bird which Mr. Bolles did not observe personally, but from the reports of the inhabitants he was positive of its occurrence.

Auk XII. Jan. 1895 p. 89

25.

Summer Birds of the Cobalt Mining Region,
Nipissing District, Ontario
by Frederick C. Hubel, Auk, XXIV, Jan. 1907, p. 50

25. **Trochilus colubris.** Ruby-throated Hummingbird.—Only noted once, July 19, near Sasaginaga Lake.

Birds of Toronto Canada,
by James H. Fleming,
Part, II, Land Birds,
Auk, XXIV, Jan. 1907, p. 76.

165. **Trochilus colubris.** Ruby-throated Hummingbird.—Common summer resident, May 4 to September 14; earliest record April 12, 1890; latest September 22, 1906; usually abundant August 15 to 31; breeds (June 1, 1904).

NOTE.—A female Ruby-throated Humming Bird, apparently a young bird of the season, was captured here in a dwelling house, which it had entered after flowers, on the 15th of October. This is the latest date that I have known this species to be seen in this country, as they usually leave by the 20th of September.

W. L. Kells, Listowel. Can.

O. & O Vol. 17, Nov. 1892 p. 165

Summer Birds Tim Pond Me. by F. H. C.

Ruby-throated Hummer, (*Trochilus colubris*). A pair seen and one secured. It was a surprise to me to find this species here. They certainly were obliged to exist without flowers, as this wilderness was destitute of everything in plant life that blossomed.

O. & O. XI. Feb. 1886. p. [illegible] 25.

Summer Residents on Southwest Coast of Maine. T. H. Montgomery, Jr.

428. Ruby-throated Hummingbird. Uncommon. Saw one at Seal Harbor, Mt. Desert, and another at Boothbay.

O. and O. 15. Nov. 1890. p. 162

Birds of Dead River Region, Me. F. H. C.

67. *Trochilus colubris*, (Ruby-throated Hummer). One was secured at Tim Pond in August, 1885, and another seen at same place and date. On the stage road between Eustis and Kingfield is a burnt district comprising several thousand acres, which is covered with a bright, handsome red flower, called by the natives "fire weed." On this tract many Hummingbirds were seen in August, 1884. None were seen around the cultivated farms.

O. & O. XI. Nov. 1886. p. 162

Trochilus colubris. – Saw one. Shelburne, N. H. Aug. 8-29-1865. R. D.

Bds. Obs. in Franconia, N.H. June 11-21 '86, and June 4-Aug. 1, '87. W. Faxon

14. Trochilus colubris. RUBY-THROATED HUMMINGBIRD.—But few seen.

Auk, V. April, 1888. p. 151

Bds. Obs. at Franconia and Bethlehem N.H. July-August, 1874. ~~W. Faxon~~. J. A. Allen.

9. Trochilus colubris. Frequently seen.

Auk, V. April, 1888. p. 154

Birds Obs. at Bridgewater, N.H. July 12-Sept. 4, 1883. F. H. Allen

Trochilus colubris.—Not common.

Auk, VI. Jan., 1889. p. 77

Breezy Point, Warren, N.H.

Trochilus colubris

1894

June 29 3 (1 ad ♂) Woodstock road
30 1 Bakers river
July 1 1 (Fay's) Woodstock 1.

There were apparently several birds breeding in the forest along the Woodstock road at and beyond the old mill pond but we may have seen the same bird several times. The bird seen on the 30th was flying down the bed of Bakers River just below the bridge.

Breezy Point, Warren, N.H.

1895.

May

28 ♂ 29 ♀ at apple blossoms in Merrill's orchard.

Summer Bds, Mt. Mansfield, Vt.

18. **Trochilus colubris.** Ruby-throated Hummingbird. — Numerous in the maple woods at the base of the mountain. I noticed several females stealing the cotton which I had placed on the bushes to mark my mammal traps.

by Arthur H. Howell. Auk, XVIII, Oct., 1901, p. 341.

Trochilus colubris

Late occurrence in Mass.

Cambridge, Mass. Sept. 23, 1882

Twice during this afternoon I saw a Hummingbird among the nasturtiums in front of our house. It went from flower to flower in the usual manner and when I frightened it away, returned after a few minutes absence. I do not remember having ever seen one so late in the season before.

Oct. 2. Saw a Hummer this morning about some phlox near our house. There has been no cold weather yet and no frosts.

Cambridge, Mass.

Trochilus colubris

1885

July 22 This afternoon about sunset a Hummingbird came to my trumpet vine which is now in bloom. It visited flower after flower half crawling into each but unlike the individual observed at Cohasset not suspending the whirring of its wings. Once it pursued a small in fact minute moth and *caught it*. It is the first Hummer I have seen here this summer &, doubtless, a migrant.

Mass. (near Concord). 1887

1887

Aug. 14

Trochilus colubris

Fall Migration, Bristol County, Mass.
1885. Charles H. Andros.

Sept. 17; three Ruby-throated Hummers were noted perched on a fir tree. They were uttering mournful chirps. I had never before heard a sound from these diminutive creatures save the "mouse like squeak" uttered when they meet in mid-air. A young bird which I once attempted to keep in confinement gave vent to a faint hoarse sound repeated at intervals of five or six seconds.

O. & O. XI. Jan. 1886. p. 2

Fall Migration, Bristol County, Mass.
1885. Charles H. Andros.

Sept. 14; a Ruby-throated Hummer was noted about some flowers to-day.

O. & O. XI. Jan. 1886. p. 2

Birds of Bristol County, Mass.
F. W. Andros.

Trochilus colubris (Linn.), Ruby-throated Hummingbird. Summer resident, common. Breeds.

O. & O. XII. Sept. 1887 p. 139

Bds. Obs. near Sheffield, Berkshire
Cy, Mass. June 17-26, '88. W. Faxon

14. Trochilus colubris. Ruby-throated Hummingbird. — Two or three seen.

Auk, VI. Jan., 1889. p. 44

Bds. Obs. near Graylock Mt Berkshire
Co. Mass. June 28 - July 16. W. Faxon

12. Trochilus colubris. Ruby-throated Hummingbird.—Observed several times in the Notch.

Auk, VI. April, 1889. p. 99

Falmouth, Mass. 1889.

31. Trochilus colubris July 21st - 28th

Cambridge, Mass.

Trochilus colubris

1884

Aug. 18. In the maple swamp I found two adult ♂ Hummingbirds. The day was very hot and they were perching in the dense shade. One that I shot is moulting but still retains many ruby feathers on the throat. The new feathers are apparently not iridescent but of this I am not sure. (See specimen No. 9456). The other bird was certainly an adult also for I distinctly saw his red throat.

" 20 One in yellow pines on the Coolidge farm, Watertown.

Trochilus colubris

1895. Falmouth, Mass.

July 12^1 15^1 19^2 28^1

Aug. 23. One in yellow birch woods.
" 26. Two in our garden, both
young or ♀♀ (Cambridge)
Sept. 5. One at Tobacco "flowers (")

Trochilus colubris

1895. Falmouth, Mass.
July 12¹ 15¹ 19² 28¹

Connecticut, June. 1893.

Trochilus colubris

June 4♂ Fairfield
" 5♀ 9 ♀♀♀ nest 2 fresh 10♂ (migrating birds) } Saybrook
" 20♂ nest
" 22♀ Andover

The above daily record does not sufficiently illustrate the fact that Hummingbirds breed much more numerously in Conn. than in Mass. but that this is the case, in the vicinity of Saybrook at least, there can be no question. In addition to the nest that we found (on a marsh island) June 9th Clark told us of two more which he has seen this season near his house.

Birds observed in Naval Hospital
Grounds, Brooklyn. G. H, Coues

9. **Trochilus colubris.** Ruby-throated Humming-Bird. — Common.

Bull. N.O.C. 4, Jan., 1879, p.31

Birds of the Adirondack Region.
C. H. Merriam.

98. **Trochilus colubris,** *Linn.* Humming-bird.—Tolerably common summer resident.

Bull. N.O.C. 6, Oct, 1881, p.231

Arrivals of Mig'y Birds, Spring-1886,
Central Park, N. Y. City. A. G. Paine, Jr.

May 19, *Trochilus colubus*, (428). Ruby-throated Hummingbird.

O. & O. XI. Aug. 1886. p. 125

Trochilus colubris

1884

Locust Grove, New York

May 28. Ther. fell to 26° Fahr. In the afternoon we picked up a dead Hummer (a ♀).
" 29. Ther. at 26° again this morning. Heard of six Hummers picked up dead this morning in or near Port Leyden. Three of them were ♀s
" 30 Saw a ♂ Hummer this a.m. alive & apparently all right. Six more dead ones reported as found at Constableville, N.Y. The cold

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Notes on the Spring Migration of Birds in the Northern Adirondacks [Axton], New York [1901].

May 20 to 25.

Ruby-throated Hummingbird. Not common.

E. A. Sterling, Brooklyn, Pa.

Auk, XIX, July, 1902, p.299.

Albinistic Plumages. R. Deane.

20. **Trochilus colubris.** Ruby-throated Humming-bird.— An albino Hummer, thought to be a little larger than the Ruby-throat, is mentioned in the "American Naturalist" (Vol. II, p. 110), but no locality is given.

Bull. N.O.C. 5, Jan., 1880, p. 28

The Singing of Birds. E.P.Bicknell.

Trochilus colubris. Ruby-throated Hummingbird.

The only sound I ever heard from this bird was an excited chippering. My books show no record of this after the breeding season.

Auk, 2, July, 1885. p. 256.

Mass. Concord. Trochilus colubris ✓

1886 Nest and eggs.

June 11 On a dry ridge covered with heavy oak and pine timber but only slightly elevated above the adjoining wet meadow bordering Concord River I took a Hummingbirds nest of unusual beauty containing two eggs far advanced in incubation, both of which were broken by being thrown out and down to the ground when I cut off the branch on which the nest rested.

I found this nest in the usual way. Passing beneath I heard a loud, sharp buzzing like that of a large bumble bee passing from

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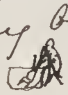
Mass. (Concord) Trochilus colubris

1887 Nest & young.

July 7 Visited a nest in Mr. Hoar's orchard. It was on an apple tree 8 ft up, on drooping branch supported by a slender twig. On July 2nd it held eggs, on the 4th young. To-day they were nearly as large as the mother but covered with pin feathers only, these of a dark brown color. Watched nest two hours, from 11 A.M. to 1 P.M. The ♀ came to it three times. The first she fed the young then brooded them for about 45 minutes. She then left the nest buzzed about in the tree for about a minute and returning to nest fed them both, one of them twice. She next flew off

July 18 The young left the nest sometime between 10 a.M. & 12.30 P.M. to-day see copy of note from Mr. Hoar on another card.

and was gone 16 minutes. Returning she fed each young bird once then brooded them for six minutes, then flew away and did not return before my remaining 20 minutes expired. The feeding was as follows. The mother alighted on edge of nest, her body erect tail pressed firmly against outside a la Woodpecker. After looking nervously around she thrust her bill directly down into the mouth of the young bird the relative positions of the two being . The tip of bill of young reaching 3/4 of length of bill of mother. For an instant her head was shaken about with a motion as of disgorging; then both she and the young remained immovable for several seconds. Once when she faced me I distinctly saw a quivering motion of her throat. I timed the operation four times. There was actual uninterrupted contact of bills over 5 seconds, once 6 do. and twice 11 do. Time taken with stop watch. The young were perfectly silent. Their bills were about 1/4 inch long very wide at base not unlike bills of Dendroicæ. I am satisfied the feeding was by regurgitation. Proofs length of contact & fact of mother feeding them once without bringing food. When she came to nest I failed to detect anything in her bill, used a strong glass at 30 ft distance. In brooding young she kept moving restlessly about seeming to trample them with her feet.

flower to flower the intervals between the sound being about equal to the duration of each buzz, although I knew its origin from former experience I strained my eyes upward for a considerable time before I caught sight of the tiny little bird darting nervously from point to point overhead. Her movements were so rapid that my eye could scarcely follow them. Her plunges were usually downward & upward sweeps, describing loops as it were from one perch to the next. Sometimes she swung backwards & forwards between the same two perches several times in succession. She did not dive past my head as they sometimes will.

If I stood still for a moment she would dart to the nest and settle on it closing her wings and dropping into it, stopping with surprising abruptness, yet as lightly as a falling feather. At my least motion she was off like a flash & buzzing over me again. The nest was on the slender dead branch of a small black oak about 10 ft. above the ground. The ♀ buzzed above but did not dive past me, as I was cutting off the branch. Afterwards she examined the place where it had been in the usual way. The ♂ did not appear.

Conn. (Seymour.) Trochilus colubris

Nesting in same place successive years.

188 - Mr. E. H. Eames writes me that he has a Hummer's nest built on an old (last year's) nest. This is the first proof I have received that T. colubris ever returns to the same spot to nest. (See letter E. H. E. Aug. 12 - 1888.)

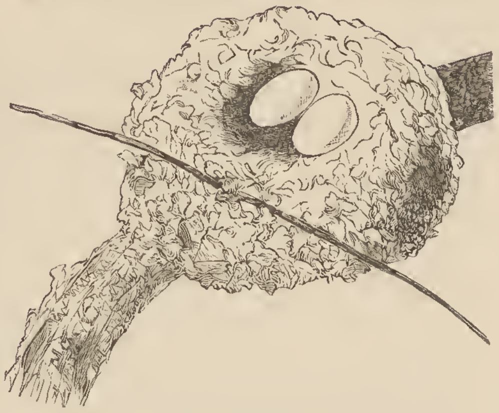
The Ruby-throated Hummingbird.

(*Trochilus colubris.*)

What was to me one of the luckiest finds I made last year was the nest and eggs of the Hummingbird.

I had been collecting in an orchard and thought I had ransacked it pretty thoroughly. While working my way out, a Hummingbird darted past, inducing me to follow in the direction it had gone. I had not proceeded far when I saw the bird dart from a limb and after a few moments re-appear and alight on the same limb. This convinced me that there was a nest somewhere in the vicinity. Dodging carefully from tree to tree, I cautiously approached the bird and had succeeded in getting quite near, when suddenly catching sight of me, he darted away. Hastily getting as near the limb as I thought prudent, I awaited his return. In company with his mate he was soon back. By the frantic way in which they darted around my head, I was convinced that their treasure was within a few feet of me. Turning my head, I beheld the prize—so near that a step to the right would have knocked the eggs from the nest. There were two pearly white eggs, my delight in discovering which may be more easily imagined than described. When I had recovered my equanimity, I retired a short distance and sat down to watch the habits of the birds, as this was the first nest of the species I had ever found.

They soon thought I had gone, and the female returned to the task of incubation. She would fly along until directly over the nest and about an inch above it, when suddenly closing her wings, she would drop into it and settle herself in position. The male meanwhile kept watch on an adjoining limb. I frightened the female off her nest several times for the purpose of watching this manœuvre, which was repeated each time. Finally concluding that I had learned all that I could, I started forward to take the nest, when I was assailed on both sides by the infuriated mites, who darted past my face so close that I began to be afraid of my eyes. They kept chirping loudly all the time, which I see is denied by some writers, who, had they been present, would never have denied it again.



Nest of Ruby-throated Hummingbird (full size, from nature.)

The nest was built near the extremity of an apple bough, and was not more than five feet from the ground. To describe the nest, I cannot do better than quote from my note-book. "The nest is an exceedingly small structure, being not more than three to three and one-half inches in circumference, one inch in diameter, and half an inch deep—inside measurements—and an inch and a half high. It is composed of thistledown, willowdown, cobwebs and caterpillar's silk. It is plastered all over the outside with lichens. The lining is of the materials named. One peculiarity of this nest is that a pine needle of extra length is just caught on to the side by a few turns of cobwebs as if for ornament, and projects from each side about two inches."—*E. M. Hasbrouk, Syracuse, N. Y.* O.&O. IX. May. 1884. p. 53.

The Eggs I Didn't Take.

While reading Mr. C. S. Brimley's article on the nesting of the Ruby-throated Hummingbird, in the February O. & O. my mind wandered back to the circumstances attending my first find of the eggs of that species. It was on the 30th day of May, 1885. At that time I was just beginning to study the lessons that all lovers of natural history must learn sooner or later, and my mind and interests were being slowly centered on the study of oölogy and its inseparable companion ornithology. No one of all the memorable events in my varied experience at collecting has made such a deep impression upon my mind as the finding of my first Hummingbird's nest. Aimlessly I wandered the familiar wood paths on that bright Memorial day morning, and a morning such as only the queen of all months can furnish, paying no special attention to anything and yet taking in, in one grasp the whole of nature from the modest violet to the showy box; from the inquisitive mosquito to the "thousand legs" that I disturbed by kicking away the stick under which he was hidden; from the sphinx-like Hummingbird to the majestic Red-tail soaring high over head, trying in some way to satisfy that vague longing for something, I hardly knew what; that longing which causes all boys who have reached the age of sixteen to take the road to usefulness and manhood or *vice versa*.

This was one of those mornings which had been so common lately in which nature, robed as she was in her vesture of emerald, and holding forth all the charms of vernal beauty, was swiftly and silently encircling me with bands which should hold for years, and giving me desires which should have their effect upon my whole life. But I am getting away from my subject, and yet the picture of that morning comes up so vividly before me that I cannot but describe it. Are not the majority of us led into the study of nature in something the same way? "There is a divinity that shapes our ends, rough hew them as we may."

Now to that Hummingbird's nest. As I was passing along a well-worn cart path my attention was attracted by a Hummingbird which darted by my head, and flying to an old ash tree alighted directly upon a lichen covered knot(?). I stood watching the bird for a moment, when it suddenly flashed through my mind that, that selfsame knot was no knot at all, but a nest. Some of you who remember your first find can perhaps imagine my feelings. My next thought was "how shall I secure it?" for the longings and aspirations of a full-fledged oölogist were suddenly born within me.

First I tried to reach it from the ground but it was just two feet beyond my grasp. Then I climbed the tree and peering into the nest beheld the first eggs of *Trochilus colubris* that I had ever seen,—and weren't they beauties? But still they might as well have been in Africa as far as accessibility was concerned. You may say why didn't I employ one of the thousand and one arts understood by the oölogist? Ah! but you must remember that this was my *first* experience. Still I did not despair, but going home I procured a saw, and on returning, spent the next ten minutes seated upon a stone wall in profound meditation. I had found a nest and I had a saw but still the problem of bisection without displacement was far from being solved. Many were the plans but none of them seemed to be practical, until finally I decided upon the one which appeared to be the best. I drove the walking stick, which I carried, into the ground directly beneath the nest, then procuring a narrow board I placed one end on the stick and the other on the stone wall before mentioned, thus forming a very unstable platform. This I mounted with considerable difficulty, as you may imagine, and began operations upon the limb about four inches back of the nest.

All this time the birds were flying around my head and making things decidedly uncomfortable in that direction. Well, I had that limb sawed about half off and was beginning to congratulate myself on what a splendid "nest egg" for a collection I was going to procure when

> "All at once and nothing first,
> Just as bubbles do when they burst."

my platform went out from under me. Of course, as instinct prompted, I grasped the branch as I felt myself falling, but no sooner had reason had a chance to assert itself than I thought that that very thing would spill the eggs, so acting on the impulse I made things worse by letting go the branch. Up it shot like a catapult, acting as such on the eggs, for when the branch had reached its natural height the eggs continued their skyward course. Imagine my thoughts. It was an easy matter now to procure the nest complete which I did in a very short time. I now have a handsome nest in my cabinet labeled Brockton Heights, May 30, 1885, and I also have in my mind a vivid remembrance of the set of eggs I didn't take on my initiatory collecting trip.

Ben Hokey.

O.&O. XV. Apr. 1890 p52-53

Notes from Manayunk, Phila.
Ellwood C. Erdis.

Ruby Throated Humming-bird, (*Trochilus colubris*). May 30th, this afternoon, as a friend and I were tramping through the woods we saw a hummer. It soon alighted on a limb of a spruce tree, and began to work at its nest which was on the end of the limb, and about fifteen feet from the ground. The nest was not quite completed, and the bird took no notice of us. I obtained the eggs on June 2d. June 2d, I found another Ruby throat's nest in the same woods about 200 yards away. It was on the end of a large spruce limb, and about thirty-five feet high. In trying to get the eggs they broke. Twenty yards off was an old nest which I suppose had been used the year before. June 5th, saw a boy find a nest on a spruce limb overhanging a small run, but he broke the eggs in trying to get them. July 19th, took a set of two eggs from a spruce limb about five feet high. The tree was on the side of a hill along Wissahickon Creek and about ten feet from it.

O.&O. XI. Jan.1886.p.7

THE RUBY-THROATED HUMMING BIRD. I took the nest of the Ruby-throated Hummingbird June 17. There were two eggs slightly incubated. They were larger than I expected. It seems to me they are large for the size of the bird. The nest was on an elm tree about thirty-five feet from the ground. On July 9th, I found another nest about six rods from this—probably of the same bird's. When found it had one bird just hatched, and one egg which hatched the next day. The young were almost black and are yet (July 14,) except a strip of down on their backs which is light brown. I have not seen the male yet, though I have watched closely for him. The old bird is rather shy and will not come very close to me, but buzzes around through the tree-top uttering almost constantly a low chirp which sounds much like the squeak of a young mouse. I did not hear her make any sound while perched.—*Vernon Bailey, Elk River, Minn.*

O.&O. IX. Aug.1884.p.104

30	Murre	12
30a	California Murre	15
31	Brunnich's Murre	15
31a	Pallas's Murre	40
32	Razor-billed Auk	12
35	Skua	40
37	Parasitic Jaeger	35
40	Kittiwake	20
42	Glaucous Gull	
47	Great Black-backed Gull	

which are held in place by numerous cobwebs. This piece of bird architecture is built by both birds and takes from five to six days to complete. The female then deposits her complement of eggs and incubation begins at once and is the work of the female, the male standing guard, or securing food for his mate. At the end of 8 or 9 days the young are hatched, and then for the next two weeks the parent birds are kept busy from daylight until dark finding food for these hungry mites. At the end of this time they are large enough to leave the nest, and in a few days more are left to shift for themselves. About the first of September they are off for the south, the old ones a few days in advance of the young.

R. S. Ingersoll.

O.& O. Vol.18, May.1893 p. 79

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and over her baby birds and expired, and for months afterwards her dead body was to be seen in this position, a silent yet eloquent reproach to the cruelty and rapacity of the great destroyer man.

The next spring, 1886, the male appeared with another mate, and after hovering about the old tree for a few days they left it and went to a wooded slope a half mile away, and in a large white oak built a nest and reared their young. Probably evidences of the foul murder committed a year before still remained at the old nest and decided them against using it.

Last spring, 1887, they appeared about March 1st and at once set about repairing the old home in the sycamore, and for two weeks, during which time I was making professional trips up the river in my boat every two or three days, they came under my observation, and with no thought of doing so at first, the desire began to develop and grow upon me to scale that tree and secure the contents of that nest, until finally on March 12th I gathered together a coil of rope, a ball of string, my climbers and an axe. I was accompanied by a friend and we repaired to the tree and at once set about devising the best means to get up to the forks, about thirty feet high. We finally decided to cut a hackberry sapling that grew near by and by trimming up about twenty-five feet of it we succeeded, after much tugging and lifting, in elevating it against the side of the tree. Putting on my climbers, I went up this and from the top was enabled by the aid of the sap-sprouts that here sprung out to get over into the forks of the tree. After resting a few minutes I now went on rapidly towards the nest until I had come within ten feet of it. I then made the startling discovery that the limb on which the nest was placed narrowed down to the thickness of my leg and was hollow and full of Woodpecker holes on the under side. It

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O.&O. XII. Dec. 1887 p. 198-199.

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Breeding Habits of the Ruby-throat at Ballston, New York.

This little gem in feathers arrives from its winter home in Guatemala and Mexico about the 10th of May, the males usually in advance of the females. After devoting about two weeks to rollicking and courtship they proceed to find a suitable location for their nest. In this different members differ very much, some choosing high, open woodlands, others dense thickets, but by far the greater number resort to the orchard near the abode of man, and there, on a horizontal limb at no great distance from the ground, they commence the construction of one of the handsomest of nests, composed of vegetable down and covered with lichens which are held in place by numerous cobwebs. This piece of bird architecture is built by both birds and takes from five to six days to complete. The female then deposits her complement of eggs and incubation begins at once and is the work of the female, the male standing guard, or securing food for his mate. At the end of 8 or 9 days the young are hatched, and then for the next two weeks the parent birds are kept busy from daylight until dark finding food for these hungry mites. At the end of this time they are large enough to leave the nest, and in a few days more are left to shift for themselves. About the first of September they are off for the south, the old ones a few days in advance of the young.

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O. & O. Vol. 18, May. 1893 p. 79

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O.&O. XII. Dec. 1887 p. 198-199.

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O. & O. Vol. 18, May. 1893 p. 79

Where the Nest Complement is Two Eggs, an Interval of More than a Day Elapses Between their being Laid.

BY R. B. McLAUGHLIN, STATESVILLE, N. C.

In the August number of the O. AND O. Mr. J. Parker Norris, commenting editorially, on an article by Mr. Hoxie, says: "More mistakes have been made by writers in the statement of the number of eggs laid by certain species than in any other branch." This recalls a statement made in an article on the Hummingbird, by Charles Wilkins Webber, the author of "Wild Scenes and Song-birds," "The Hunter Naturalist," and I learn from a brief sketch, of "Some valuable contributions to Natural History." Having described his finding a hummer's nest, Webber, in the article in question, continues:—"Having climbed up first, so as to show her, my sister followed—the girls *used* to climb like squirrels, in Kentucky, in my young days!—and many were the expressions of childish delight as she peeped over and saw these *three* little eggs," etc.

Is natural history benefited by such valuable contributions as this? I thought it was settled that the hummers lay but two eggs. I have examined hundreds, and I say hundreds because I have examined that many of the nests of the Ruby-throated (*T. colubris*) and have never known more than two eggs in a set to occur. I have also found a dozen or more nests containing one egg each, in various stages of incubation, but on several occasions found the broken shell of the missing egg on the ground beneath and believe the other wanting ones had a history also.

I am quite sure that the usual number is two and do not believe the bird ever lays more, and

my reason for so believing brings me to what I wish to say concerning the birds that invariably lay two eggs in this section, which is this: *one day elapses between the days on which the first and second eggs are laid*—that is if the bird lay its first egg on Monday, it will miss Tuesday and lay the second on Wednesday. I first observed this some years ago by watching nests of the domestic Pigeon and have since devoted much time to the class of birds which lay two eggs. I have examined many nests of Ruby-throated Hummingbird, Whippoorwill, Nighthawk, Turkey Buzzard, Black Vulture and Mourning Dove, and all were found to conform to the above rule. I have never seen this fact mentioned by any writer, nor have I met with a collector who had noticed it, and Mr. Norris writes me that he is confident it has never been mentioned in any work on ornithology and oölogy. To me it seems almost incredible that so curious a thing should have been entirely overlooked by all naturalists, and it was with some hesitation that I decided to mention the fact so far in advance of the coming season when the proper investigations may be made; however, I have the satisfaction of knowing that when the matter is tested my statements will be verified.

It is well that the oölogist should be informed of the elapsing of this interval as he may allow sets to be completed which he would otherwise take while incomplete.

I earnestly desire the coöperation of collectors everywhere, specially those who have opportunities to observe the Western Hummingbirds, Ground Dove, Chuck-will's Widow and others whose normal number is two, and if they conform to the same rule—and by analogy it would seem they do—the natural deduction will be that where this uniform interval occurs between the depositing of the first and second eggs, two *complete* the set and when a third egg appears it is laid by another bird.

Although this should serve only as a means of ascertaining what species lay but two eggs, it may go just so far in determining the vexed question of how many eggs constitute a set. Therefore, it is hoped that collectors will give this class of birds the attention they deserve, and let their fellow collectors have the benefit of their observations. To the thoughtless one who may otherwise think me in error, I will say that the nest may be completed and one egg laid when found and should he return on the following day and find the set complete, this only proves the first egg had been deposited one day prior to the finding.

O. & O. XII. Dec. 1887 p. 198-199.

Birds Tioga Co, N.Y. Alden Loring.

335. Ruby-throated Hummer. Common. Found around the marshy and swampy places. One nest which I found was placed on a horizontal limb of a small maple in the woods. It is composed of downy substances and is covered with bits of lichens wound on with cobwebs. It is deeply hollowed. The measurement of the nest is 7-8 in. wide, 5-8 in. deep. The eggs are two in number. The measurement of one in my collection is 1-2 in. by 5-16 in. The weight of a Ruby-throat's body after it is skinned is 25 grains.

O. & O. XV, June, 1890, p. 84

Nesting of the Ruby-throated Humming Bird at Raleigh, N. C.

The Ruby-throated Hummer (*Trochilus colubris*) is quite a common bird here, but to any one not used to looking for nests, it might almost as well be extinct for all the nests he will find. The birds begin building about the first week in May, and from that time to the end of June (May 11 to June 24 are my dates) nests and eggs may be found in various stages. If one knows a tree the birds have formerly nested in, it is as well to look in the neighborhood, as the Hummer builds year after year in the same old spot, often only varying the exact position a few yards from last year's nest. The nest is placed from seven to forty feet high, near the end of an oak limb, and is almost always saddled on the limb and not in a fork; when built in a pine the nest is placed on a dead twig or twigs, but on any other tree on a live limb — oaks are the trees most used, and pines next — thus out of twenty-five nests which I have recorded the tree they were in, fourteen were in oaks, seven in pines, and one each in poplar, maple, apple and hickory. After the eggs have been taken it doesn't seem any good to look for the bird rebuilding near by, as I have tried to do this plenty of times, but never yet found a nest that I could suppose was the second attempt of a pair whose nest had been previously taken.

The nest can be found by watching the Hummers building but I find most nests by noticing whenever a Hummer seems alarmed at my presence, and then carefully searching for the nest, which I have almost invariably found close by, but when it came to getting a set of eggs from the nest, I have often been found wanting.

C. S. Brimley.

O. & O. XV. Feb. 1890 p. 18

Ruby-throated Humming Birds.

(*Trochilus colubris.*)

One warm afternoon, (16th of June, 1874), I was collecting insects in Buffalo grove near this place, and becoming tired, had lain down to rest in the cool shade of a large oak. While lounging there, half asleep, my attention was suddenly attracted by a loud humming noise which I thought to come from a large beetle. In a moment I was on the alert, but could see nothing, and the noise quickly ceased, but in a moment it was repeated, and continued for about fifteen seconds. In this way the noise alternated for some time. At times it would appear very close, then some rods away. Finally Madam Ruby-throat, for it was she, came within a few feet of my face and darted away to a large Butternut, settling on what appeared to be a knot on a dead limb about fifteen feet from the trunk of the tree. She only remained there a few seconds, when she returned to me and darted at my face several times, and then returned to her seat on the dead limb. This was done four different times, and then I began to get the idea that that knot on the dead limb was a nest I had so often longed to see, and which I had spent many long hours searching for. It was but the work of an instant to climb some distance above so that the inside of the nest could be plainly seen. There on their snow white bed were two beautiful white eggs, which I have since shown to many admiring friends with pleasure.

To get them safely to the ground was going to be a very difficult task, as the nest was fully twenty feet from the ground and the limb a slender one. The task, however, was accomplished by the aid of two long ladders tied together at the top. By standing on the top rung the nest could just be reached, and by making three trips the nest and eggs were brought safely to the ground. Incubation had just commenced. The nest was such a one as only the Hummingbird can make, being composed of the soft down of the cottonwood seed and covered with lichens, after the manner of the Wood Pewee. All the time we were around or near the nest, the female was ready at all times to show her pugilistic qualities by darting at our eyes and chirping, loudly for so small a thing. It seemed mean to rob the poor little thing of her treasures after she had defended them so bravely, and can only offer the old excuse—"The ends of science."

Three years later another nest was found in a ravine in a very remote part of the woods. At this particular place Hummingbirds had been very plentiful since their arrival in May; so early in the morning of June 18th, I set out to find a nest if possible. The banks of the ravine were very steep and thickly wooded. A stream at one time had found its way through the bottom. Dead trees were numerous—a more desolate place would be hard to find.

As I was passing along, a Hummingbird came buzzing about my head a moment and then darted away. Thinking she would return, I sat down on a large stone, and had scarcely waited a minute, when she returned and flew at me a few times, and left as before. This time by close watching I saw her fly into the top of a dead Oak which I went to, and easily found the nest. It was placed on the upper side of a small limb where it forked, and was about thirty feet from the ground. After climbing to the nest, I sat on a large limb two feet from it. While in this position, the bird would fly very close to my head, remaining at the same place in the air for several seconds, chirping loudly all the time. Her notes consisted of one syllable, sometimes uttered two or three times in quick succession—something like twēēt, twēēt. She would even alight on her nest when it was within easy reach of me, and remain there until my hand was within four inches of her, when she would leave the nest quickly. This nest was built of down

JOURNAL

—OF—

The Trenton Natural History Society.

No. 2.

JANUARY, 1887.

CONTENTS.

Varieties of Woodsia obtusa and Viola palmata. *Willard A. Stowell,* - - 23
A Key to the Rotifera. *Dr. T. S. Stevens,* - - - - - - - - - 26
Some Observations on the Anatomy of Cicada septendecem. Illustrated. *Ellis A. Apgar,* - - - - - - - - - - - - - - 43
A Few Wild Flowers Under Cultivation, II. *Ernst Volk,* - - - - 46
A Case of Bone Reconstruction. *Dr. H. G. Wetherill,* - - - - - 52
Nesting Habits of the Humming-Bird. *Prof. Wm. Macfarland,* - - - 55
The Muskrat and the Unio. *Prof. Austin C. Apgar,* - - - - - - 58
Analytical Key to the Fresh-Water Polyzoa. Illustrated, - - - - 59
Publications Received, - - - - - - - - - 67

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TRENTON, N. J.:
PUBLISHED BY THE SOCIETY.
1887.

ARROW PRINT.

Conn. (Seymour) Trochilus colubris

1888 Feeding young on spiders.

June "June 2, 1888 I found a nest of Ruby-throated Hummingbird at the end of a sycamore branch 13 ft. from ground. Upon taking it two days later I found it contained an egg on the point of hatching and a young bird about three days old. The throat of the latter was filled to the bill with small

commingled with

food.

iders by

dwin H. Eames

(Aug 3-88)

Food of Young Hummingbirds.—July 2, 1887, Mr. E. S. Hoar of Concord, Mass, found a Ruby-throated Hummingbird's nest in his garden. It was saddled on the drooping branch of an apple tree about eight feet above the ground, and contained two eggs which were hatched July 4. On the 7th Mr. Hoar kindly allowed me to inspect the nest and its contents. The young were then nearly as large* as their mother, and were covered with pin-feathers of a dark brown color. Their bills were perhaps a quarter of an inch long, wide at the base, and in general shape not unlike the bill of a *Dendroica*, but more depressed.

Taking a station near the tree I watched the nest for two hours (from 11 A.M. to 1 P.M.). During this period the female visited it three times. At her first coming she fed the young, and after brooding them for forty-five minutes, buzzed about in the tree (not once leaving it) for about a minute. She then returned to the nest and fed the young again, one of them twice in succession. Immediately afterward she flew off out of sight and was absent sixteen minutes. At the end of this time she came directly to the nest, fed each young bird once, brooded both for six minutes, and then again flew away not reappearing during the remaining twenty minutes of my stay.

Her manner of feeding her offspring was as follows: Alighting on the edge of the nest, her tail pressed firmly against its outer side in the manner of a Woodpecker, her body erect, she would first look nervously around, then thrust at least three quarters of the total length of her bill down between the upraised open mandibles of the young bird. Next she would shake her head violently as if disgorging something; then, with their bills glued tightly together, both birds would remain, for the space of several seconds, perfectly immovable save for a slight, rapid, pulsating or quivering motion of the mother's throat. The actual contact of the bills lasted once four seconds, once six seconds, and twice eleven seconds, the time being taken with a stop watch. The male did not appear at all. The young were perfectly silent. The mother in brooding them kept moving restlessly about as if she were trampling on them.

The close and prolonged contact of bills, the shaking of the mother's head, the subsequent quivering motion of her throat, and, above all, the fact that after sitting on the nest nearly an hour she fed the young a second time without once leaving the tree in the interim, convinced me that the method of feeding was by regurgitation.

The character of the food thus supplied I could not, of course, ascertain without killing and dissecting one of the young, a proceeding which my kind-hearted host would certainly not have sanctioned.

The observations above detailed were made at a distance of about ten yards from a point only a few feet below the level of the nest, and with the aid of a powerful field glass. As the day was clear and the light strong I could see the birds nearly as well as if I held the nest in my hand.—WILLIAM BREWSTER, *Cambridge, Mass.*

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*It is remarkable that they should have attained so large a size in so short a time. They did not, however, leave the nest until July 18.

Auk, VII. April, 1890. p. 206-207

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June "June 2, 1888 I found a nest of Ruby-throated Hummingbird at the end of a sycamore branch 13 ft. from ground. Upon taking it two days later I found it contained an egg on the point of hatching and a young bird about three days old. The throat of the latter was filled to the bill with small spiders of slightly varying size unmixed with any other kind of solid or fluid food. I pressed out fifteen of these spiders by pressing the bird's throat gently." (Edwin H. Eames in letter of Aug 3-88)

Hummingbirds feeding their Young on Insects.—Mr. Manly Hardy has kindly consented to my publishing the following extract from one of his letters: "When I was in Colorado Mr. E. Carter told me this story. He found a Hummingbird's nest one afternoon, containing two eggs. As he wanted the parent he left it and returning next day shot her. To his surprise there were two young in the nest instead of eggs. Upon dissecting the young he found two insects in the stomach of one of them, thus proving that Hummingbirds sometimes feed their young on insects within twenty-four hours from the time they are hatched." Unfortunately Mr. Hardy did not ascertain the particular species of Hummer above referred to.—WILLIAM BREWSTER, *Cambridge, Mass.* Auk, 4, July 1887. p. 255

point only a few feet below the level of the nest, and with the aid of a powerful field glass. As the day was clear and the light strong I could see the birds nearly as well as if I held the nest in my hand.—WILLIAM BREWSTER, *Cambridge, Mass.*

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Auk, VII. April, 1890. p. 206-207

THE FOOD OF HUMMINGBIRDS.

BY FREDERIC A. LUCAS.

In 'Science' for October 28, 1892, was an article by Dr. Morris Gibbs of Kalamazoo, Mich., entitled 'The Hummingbird's Food,' in which the author stated as the result of his observations, and

fornia Anna's Hummingbird fed on the sap of the willow (*Salix lariolepis*), drinking at holes made by *Sphyrapicus ruber*, and from wounds made by the grub of a large borer. I have also been told that the Rubythroat has been seen in fall hovering about fallen pears from which the juice had exuded sufficiently to attract numerous 'yellow-jackets.'

In view of the published accounts of Gould, Gosse and others, substantiated by incidental observations of my own, this amount of testimony to the vegetable nature of the Hummingbird's food was a little surprising, and, in the hope of throwing a little light on the subject, the birds themselves were appealed to and the stomach contents of a number examined.

Altogether twenty-nine specimens, representing thirteen species, from sixteen widely separated localities, were examined, and all of these, save four which were quite empty, contained insect remains, usually in large quantities. Young Hummingbirds examined by Dr. Shufeldt and myself contained flies, spiders, and beetles, and any one who examines a nestling will notice that the skin of the neck is distended by the expansion of the œsophagus where this is, or has been, packed with food, so it is pretty safe to say that it is more than doubtful that honey enters into the little ones' bill of fare.

The Humming-Bird's Food.

THE notes that have recently appeared in *Science* regarding the humming-bird's food, would seem to show that the bird's taste varies with the locality. In southern New York their favorite flower is the swamp-thistle (*Cirsium muticum*). No better place could be selected for studying the feeding-habits of the ruby-throats than a spot where these flowers abound. Dr. Gibbs thinks the individual flowers of the red clover too small for the ruby-throat's attention, but in the thistles the flowers are even smaller Since it has been said that the bee gets pollen but not honey from the thistle, it would appear that the birds visit these flowers for insects. There is scarcely a flower that contains so many minute insects as a thistle-head. Examine one with a lens and it will be found to contain many insects that can hardly be seen with the unaided eye. If the ruby-throat eats insects at all, these are the ones it would take; and because the larger ones remained the observer might conclude that none were eaten.

WILLARD N. CLUTE.

Binghampton, New York, Nov. 21.

Science Dec. 9, 1892 p. 383 Vol. XX No. 514

Pickens Co.
So. Carolina.

23. **Trochilus colubris.** RUBY-THROATED HUMMINGBIRD.—Equally common over the wooded mountains and in the open valleys below. I did not try the experiment, but it is averred that corn whiskey, with sugar dissolved in it, placed in flowers much affected by these little pygmies intoxicates them so effectually that their capture by the hand is rendered an easy matter. S. Carolina. Loomis. Auk, VII. Jan. 1890. p. 38.

The Chuck-will's-widow (*Antrostomus carolinensis*) **in Massachusetts.**—In the month of December, 1884, I found, in the barn of Mr. Geo. A. of Revere, Mass., the dried skin of a bird which Mr.

220 *General Notes.* [April

The First Nest and Eggs of Eremophila alpestris found in Niagara County, N. Y.—If there is one nest which I have looked for more than for another, it is the nest of the Horned Lark. From early in March till late in May, for the past five years, I have searched in vain. On the 17th of June, 1884, while collecting in the town of Porter, Niagara County, I was fortunate in securing the coveted prize. I was in company with

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blossom as a decoy, this little bird was soon taught to drink from a small phial, holding about two teaspoonfuls of sugar and water (about one-third sugar), that was suspended by a string to the window casing. It was but a day or so before it seemed perfectly contented, not showing the least fear, but seemingly growing stronger as well as larger in its new home.

Miss Brubaker thinks the bird was not an old one, as its tail-feathers grew considerably after she had it. She says that at first they kept a variety of cut flowers in the room with it, but it barely alighted upon them, flying at once to the bottle which it had learned to appreciate. Somewhat after the manner of obtaining nectar from a flower, it would sip a moment at the bottle and then dart away; but it was not long in finding that the supply of sweetened water was inexhaustible, and that there was no necessity of hastening its meal. At times it would drink so much that its wings were unable to sustain the weight of the body, and a fall to the floor was the result of its excessive fondness for this artificial nectar. When left to itself and no check put upon its drinking, it would consume at least half the contents of the phial daily—at least one-half as much as its own bulk.

"We are certain," she writes, "that for at least a month the bird had access to no flowers whatever, thus making it certain that the sweetened water furnished it its sole nourishment. and during this captivity it did not show the first signs of diminishing strength."

At the approach of cold weather it was placed in a cage, in which its little history was brought to a close by its accidentally entangling one of its claws in a loose wire which secured a small perch in the cage, and thus suspended, with its head downward, it was found by Miss Brubaker the next morning — another 'bunch' of rumbled feathers. — SAMUEL WELLS WILLARD, *West De Pere, Wisc.*

Auk, 2, April, 1885. p. 218-219.

The Humming-Bird's Food.

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Food of the Hummingbird (*Trochilus colubris*).— Somewhere it has been stated, that the Hummingbird derives the most of its nourishment from the minute insects which adhere to the nectar of flowers, and which are taken with the honey. Undoubtedly many insects are thus secured, and furnish their share of nutriment to the species, but in the following account of a Hummer in confinement, kindly furnished to me by Miss Hattie Brubaker, it will be seen that insects are not wholly essential to the maintenance of life, in *Trochiluscolubris* at least.

The bird, she writes, was taken September 1, near De Pere, Wis., and throve nicely until October 28, when it met an untimely death. After it had struggled in vain for nearly two days to escape from a room into which it had accidentally flown, it was picked up in an exhausted condition and carefully placed out of doors in an arbor, in hopes of its recovering sufficiently to fly away. A severe cold rain that night completely numbed it, so that it was again taken to the house a mere bunch of rumpled feathers—no life then being apparent. A slight warming quite unexpectedly revived it, and it was but a short time before it opened its eyes and flew to a nail, and then immediately began to rearrange its plumage. As flowers and sweetened water were offered to this captive before it was taken to the arbor, without its once noticing them, Miss Brubaker was rather at a loss to know how to feed it; but at last she conceived of placing some sugar and water in a conspicuous gladiolus blossom, which the Hummingbird soon discovered and visited, drinking greedily the honey that was in the blossom. After this it became quite lively, flying from its nail to some dried flowers and grasses in another room, where it had rested during the two days it had remained in the house without food or water.

With the aid of a petunia blossom as a decoy, this little bird was soon taught to drink from a small phial, holding about two teaspoonfuls of sugar and water (about one-third sugar), that was suspended by a string to the window casing. It was but a day or so before it seemed perfectly contented, not showing the least fear, but seemingly growing stronger as well as larger in its new home.

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Auk, 2, April, 1885. p. 218-219.

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90. p. 38.

Food and Habits of the Ruby-throated Hummingbird.— On June 5, 1888, I secured a nest, containing one young bird and an egg on the point of hatching, of the Ruby-throated Hummingbird. The nest is a very peculiar one, being constructed upon one of the preceding year, and in a very conspicuous situation upon a branch of sycamore, which inclined at an angle of 45°. It was about twelve feet from the ground, on the lowest branch (a dead one), with no foliage whatever to afford concealment, and could be readily seen from a distance of sixty to seventy-five feet in any direction.

The old nest is much the worse for wear, having passed through at least one winter; the new one was built partly on one edge of this and partly on the adjoining branch, leaving fully one-half of the distorted cavity at the base exposed. The entire external surface of both is covered in the usual way with lichens, although not in any way resembling the smooth, mottled surfaces adjoining. It would seem that the scenes of bygone associations have some permanent attractions, even though comparatively barren to our eyes.

Perhaps the most interesting facts were brought to light when the young one, about two days old, was examined. Its throat being much distended, I sought the cause by lightly pressing with a dull instrument from the thorax toward the bill, and succeeded in bringing to light, *sixteen* young spiders of uniform size. These measured about .11 of an inch in length, and with outspread legs covered a circle of .26 of an inch in diameter. Dissection revealed a pultaceous mass of the same in the stomach, but no more liquid than would result during digestion of insects of this gelatinous character. They were all of the same species, and may have been young found about certain plants in the immediate vicinity. It is surprising that young Hummingbirds of this age could thrive, as it would seem, entirely upon insects, although the quality be of the finest.

Although I spent several hours watching this nest, on different occasions, no food was brought at such times, but the actions of the female, as seen through a strong field glass at short range, were decidedly interesting. The approach to the nest was as usually described in about one third of the records—*i. e.*, directly to a point over and close to the nest, then dropping lightly into it. The general method, however, was by a dashing flight to within twelve or fifteen feet, a sudden pause while poised in the air, anxiously looking about her, then one or two feet further, another pause with the same manœuvres, to be repeated until at last, she dropped into the nest as ordinarily. This entire procedure occupied less than ten seconds. A few times she seemed to fly directly *into* the nest without any preliminaries.

Just after settling in the nest, she had a habit of occasionally completely turning around in it, one or more times. This was a hitching motion, as if by the use of her feet, meanwhile appearing to re-arrange the material on the outside and as if shaping the interior to her better satisfaction by this treading motion. At other times, spreading her wings over the nest in a seeming ecstacy of delight, she rather flutteringly turned around in it, apparently without regard for its precious contents.

There seemed to be one never varying position when at rest, that facing the more open part of the grove, the usual direction of approach being from behind, whereas the flight from the nest was toward the clearer space in front. The sitting posture was not one of absolute rest at any time, as the head was constantly in motion, so that no approach could be made without her knowledge, The flight from the nest seemed to be directly out of it, without any preliminaries. The weather was warm, yet she would remain on the nest from fifteen to twenty minutes, and in no instance was away more than two minutes, while I had her under observation. The male frequently appeared in the vicinity, but neither offered food or even deigned to alight on the same tree, yet birds which had a good claim in the neighborhood dared not approach very close, as the combined attack of these active birds always proved so distasteful that they invariably beat a hasty retreat.—Edwin H. Eames, *Bridgeport, Conn.*

Auk, VII. July, 1890, p. 286-288.

General Notes.

Observations on the Ruby-throated Hummingbird.—One 27th of May my son discovered a Hummingbird at work upon her nest, and drew for me a map of the locality by which I had no difficulty in finding the spot. It was well in the depths of an eighty acre forest. I watched my opportunity and while the bird was away for material succeeded in obtaining a desirable seat for observation. The saddle was already formed and the nest evened up to a platform level with the upper surface of the limb. It was placed beyond the middle of a long, slender maple branch about fifteen feet above the ground. The bird always followed the same direction whenever she went for material. Oftener than otherwise she returned laden to her nest in thirty-nine seconds after she left it—now and then more; once ninety seconds. I also spent much time there the 28th and 29th, and find the history of those days very similar to that of the 27th. Occasionally she took a vacation for food and rest; but those vacations were short. On May 30, at two P. M., the cup was complete and the bird was carrying silk and lining it. For this material she would be gone about as long again as for that of the outside. The next day, May 31, she was sitting. During incubation she sat lightly on her nest a few minutes, then off as many, and looked brightly about her while on her eggs.

On June 8 I found my bird in trouble; another female Hummingbird was trespassing. The aggressor would hover over the nest, swoop back and forth above it like a pendulum, alight with a tantalizing gesture on a twig close beside it, or, with a squeal, dart under it, and each time she came near would get driven away by the sitting bird. Twice I saw her rob the nest, once of lichens from the outside and once a good bill-full of silk from the lining. The poor mother came back to her eggs as often as she was disturbed. After watching the constant conflict for more than two hours, I left them still battling. The next day the nest was unoccupied. During all these thirteen days—I had spent much time in close observation—I did not once see a male Hummingbird in the vicinity of the nest. It was the female who did all the labor of nest-making and of incubation and who, as long as she could, valiantly defended her eggs and property. In my chosen seat I was not more than twenty feet from

153-54

"Atlantic Monthly."

A WIDOW AND TWINS.

> "The fatherless and the widow . . . shall eat and be satisfied." — DEUTERONOMY xiv. 29.

ON the 1st of June, 1890, I formally broke away from ornithological pursuits. For two months, more or less, — till the autumnal migration should set in, — I was determined to have my thoughts upon other matters. There is no more desirable plaything than an outdoor hobby, but a man ought not to be forever in the saddle. Such, at all events, had always been my opinion, so that I long ago promised myself never to become, what some of my acquaintances, perhaps with too much reason, were now beginning to consider me, a naturalist, and nothing else. That would be letting the hobbyhorse run away with its owner. For the time being, then, birds should pass unnoticed, or be looked at only when they came in my way. A sensible resolve. But the maker of it was neither Mede nor Persian, as the reader, if he have patience enough, may presently discover for himself.

As I sat upon the piazza, in the heat of the day, busy or half busy with a book, a sound of humming-bird's wings now and then fell on my ear, and, as I looked toward the honeysuckle vine, I began after a while to remark that the visitor was invariably a female. I watched her probe the scarlet tubes and dart away, and then returned to my page. She might have a nest somewhere near; but if she had there was small likelihood of my finding it, and, besides, I was just now not concerned with such trifles. On the 24th of June, however, a passing neighbor dropped into the yard. Was I interested in humming-birds? he inquired. If so, he could show me a nest. I put down my book, and went with him at once.

The beautiful structure, a model of artistic workmanship, was near the end of one of the lower branches of an apple-tree, eight or ten feet from the ground, saddled upon the drooping limb at a point where two offshoots made a good holding-place, while an upright twig spread over it a leafy canopy against rain and sun. Had the builders sought my advice as to a location, I could hardly have suggested one better suited to my own convenience. The tree was within a stone's toss of my window, and, better still, the nest was overlooked to excellent advantage from an old bank wall which divided my premises from those of my next-door neighbor. How could I doubt that Providence itself had set me a summer lesson?

At our first visit the discoverer of the nest — from that moment an ornithologist — brought out a step-ladder, and we looked in upon the two tiny white eggs, considerately improving a temporary absence of the owner for that purpose. It was a picture to please not only the eye, but the imagination; and before I could withdraw my gaze the mother bird was back again, whisking about my head so fearlessly that for a moment I stood still, half expecting her to drop into the nest within reach of my hand.

This, as I have said, was on the 24th of June. Six days later, on the afternoon of the 30th, the eggs were found to be hatched, and two lifeless-looking things lay in the bottom of the nest, their heads tucked out of sight, and their bodies almost or quite naked, except for a line of grayish down along the middle of the back.

Meanwhile, I had been returning with interest the visits of the bird to our honeysuckle, and by this time had fairly worn a path to a certain point in the wall, where, comfortably seated in the

Trochilus colubris

Cohasset, Mass
July 15, 1883

A Hummingbird which I watched for some time to-day ~~was~~ visited, in succession, all the flowers of a trumpet vine that is trained over the roof of the piazza. She (for the bird was an adult ♀) poised in the usual manner before the shallower blossoms but the length of the corolla of others obliged her to actually alight on the edge of the cup into which she actually crowded her body all of which, except the tips of the folded wings, disappeared for nearly

Mass. (Concord)

Trochilus colubris

1887

Young leaving nest.

July 18 "The humming bird was sitting on her nest very tranquilly this morning at 10 o'clock while Mr. Monroe & I watched her at a distance of two yards. Last night I saw, about sunset, the long bills and white throats of the two young above the rim of the nest. Now 12.30 P.M. they are all gone" Edward S. Hoar in letter of July 18, 1887.

a minute.
At frequent intervals during the day but especially at morning & evening this bird & another, an adult ♂, ~~and~~ probably its mate, visit this vine and enter or poise before every flower

Mass. (Concord) Trochilus colubris

1887 Young leaving nest.

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Mass. (Cambridge) Trochilus colubris

Crawling into trumpet flowers.

1888 Summer migration, ^ Adult ♂ in autumn pl.

July Hummers appeared about our trumpet vine the day its first blossoms opened (July 25) and since then not a day has passed when they were not almost constantly to be seen there, often two at a time. This morning (July 29) I saw what was evidently an adult ♂ feeding in a bed of phlox in our garden. I got very near him and saw distinctly that his whole throat was ruby as in spring excepting that its iridescence did not seem as bright. In every other respect he seemed to be in full plumage. At the

Humming Birds.—C. J. Maynard states in his Birds of Eastern North America, page 215, that the male R. T. Humming Bird is especially watchful of the nest and is very pugnacious when any person approaches it. I have taken several nests of this species and have watched the birds building their nest, and in no instance have I seen the male bird near the nest, even when it contained young, and the experience of others who have taken them here agrees with my own. O. & O. V11. Nov. 1882. p. 174

trumpet vine I have repeatedly
seen the Hummers (all white-throats)
push into the lids of the flowers,
sometimes folding their wings
as they pushed their way in.
as a rule, however, they kept
the wings in rapid motion.
I saw a single white-throated
Hummer in our garden about
July 18th. Have seen none
before that date this year.

Humming Birds.—C. J. Maynard states in his Birds of Eastern North America, page 215, that the male R. T. Humming Bird is especially watchful of the nest and is very pugnacious when any person approaches it. I have taken several nests of this species and have watched the birds building their nest, and in no instance have I seen the male bird near the nest, even when it contained young, and the experience of others who have taken them here agrees with my own. O. & O. V11. Nov. 1882. p. 174

"Buzzi" (Trochilus alexandri)
Goodhue

ON THE EAST SIDE.

cleaned; but that she was ludicrously and wilfully ugly he could not believe. As for that first lesson of civilization which my words implicate, a civic control of the private architecture of the place, he would shrink from it with about as much horror as from civic control of the liquor trade. If he did not, he would still be unable to understand how the individual liberty that suffers a man to build offensively to his neighbor or to the public at large, is not liberty, but is a barbarous tyranny, which puts an end instantly to beauty, and extinguishes the common and the personal rights of every one who lives near the offender or passes by his edifice. The Americans are yet so far lost in the dark ages as to suppose that there is freedom where the caprice of one citizen can interfere with the comfort or pleasure of the rest.

A. HOMOS.

"BEND LOW AND HARK."

BY LOUISE CHANDLER MOULTON.

BEND low and hark with me, my dear,
How the winds sigh!
A voice is on them that I fear—
It brings the by-gone days so near,
Like a soul's cry.

Those whom we bury out of sight,
How still they lie!
Beyond the reaches of the light,
Outside the realm of day and night,—
Do they not die?

Shall we unbar the long-closed door—
You, dear, or I?
Could love be what it was before
If we should call them back once more,
And they reply?

Would they life's largess claim again?
. . . They draw too nigh.
Oh, winds be still! You shall not pain
My heart with that long-hushed refrain
As you sweep by.

The dead have had their shining day—
Why should they try
To listen to the words we say,
To breathe their blight upon our May?
. . . Yet the winds sigh.

Century Mag?
7 1888-90?

"BUZZ."

By Stoddard Goodhue.

ALL through the summer I watched a pair of humming birds as from time to time they visited the canna-beds on the lawn. It was curious and interesting to see them play together on a bright day. On one occasion in particular the female who could readily be distinguished by her plainer attire—alighted on the tip of a spike of Spanish bayonet that stood in the center of a canna-bed, and the male disported himself about her like one possessed. He would glide upward to the height of twenty or thirty feet above her perch, and then descend like a bullet almost to her side, instantly rebounding to about the same height as before. It was as if he had been suspended by a rubber thread, the elasticity of which caused him to bound back and forth through the air. But the motive power really lay, as I well knew, within the body of the little hummer, — nay, more, it lay in his warm little heart; for these curious evolutions were plainly enough a species of ethereal caress. The little helpmate appreciated it, too, for she flirted her wings joyously each time her mated lover dashed by her. Meanwhile the lover, as he passed, whispered sweet nothings in tones that no doubt were to her æolian, but which sounded to human ears more like the chirping of an insect. But who could be cruel enough to apply ordinary tests to the timbre of a lover's voice?

Let me rather hasten to affirm my belief that these caresses and whisperings were no mere ordinary lover's vows, but the far more significant evidence of happy wedded life; for I feel assured that the little birds had already entered upon their domestic duties. Indeed, I have a theory that the exceptional evolutions were in token of unusual rejoicing on the occasion of the birth of a son and heir to the well-mated couple. And this offspring—so my imagination will have it — was none other than the dear little fellow whose partial biography I am about to narrate. At all events I saw the couple oftener after this, and though I did not see the nestling with them, that is explained by the supposition that he was made to shift for himself very soon after he learned to fly.

I kept an eye out for the youngster, and presently he appeared. There was no mistaking him, for though he looked almost precisely like his mother he was very much more guileless than she, as he proved by allowing me to approach him almost at will. As I stood close beside him on several occasions, while he hovered from flower to flower, I could not help longing to have him for a pet. At last, unable to resist the temptation, I made him captive with a butterfly-net, which I swept over him while his quick eye was momentarily hidden in the depths of a canna flower. As he lay in the meshes, he set up a plaintive little wail that made me regret my act, but a moment later he cuddled in my hand confidingly. Placed beneath a bell-jar, he was found to be uninjured. Nor did he seem greatly frightened after the first few moments of his unexpected captivity. He did not quite appreciate the nature of glass—as who would on first observation?—and once or twice attempted to fly through it; but finding it impenetrable, he accepted the situation, and perched composedly on a flower that I thrust into his prison. Transferred to a large cage with fine meshes he showed even better judgment, exploring his new home leisurely, and never so much as touching one of the bars. After an exploratory flight he perched on a twig and seemed quite at home.

The problem of feeding proved equally simple. Within an hour after his capture the little bird sucked sugar from my lips with avidity and a little later he fed from the mouth of a medicine-dropper containing simple syrup as freely as if all the flowers of his experience had been of that pattern. The dropper being fastened through the meshes of the cage, a perpetual reservoir of sweets was supplied. From this the hummer continued to regale himself. Only one thing, I think, surprised him. It was not that nectar should appear in glass tubes. That was to be expected—what else could glass tubes be made for? But in the little bird's previous experience he had known nothing of a flower that bore honey in unlimited supply. So sometimes after a vigorous draught he would withdraw a few wing-beats from the tube and examine it critically, no doubt wondering if it would hold out forever. Then he would chirp a cricket note of satisfaction and gratitude and return to the banquet. Another dropper supplied water, but this was seldom touched unless the syrup proved too thick, in which ease the little bird invariably flew to the water tube to dilute it. How he learned to do this I cannot imagine, as the nectar of flowers is always supplied ready for use, but this was only one of many ways in which he proved himself a wonderfully wise little bird.

As cage life seemed to agree so well with the hummer, I no longer had any misgivings about adopting him permanently, so I christened him "Buzz." No one who heard him buzz-

Trochilus colubris

The Lichens.

BY H. A. GREEN, CHESTER, S. C.

IN olden days when earth was young,
Glad life brought forth her children bright;
Among the first-born there was one
Of obscure birth and doubtful might.

Dim was the light this child did see,
For earth was covered o'er with cloud;
And hard her breast on which to lie,
For land was but with rock endowed.

Though but a plant, this humble child,
Had given to it weary task,
To help prepare the earth, so wild,
For higher life to come at last.

Close clinging to the barren rock
It slowly grew—this was its toil—
Its life sustained by air and rock,
Then, dying, mouldered into soil.

Unconscious thus its life it spent,
The Master's high behest to do;
To enrich the earth its strength it lent,
And served its generation too.

Its task not done, its children live,
We see them oft most intimate
With earth, and rock, and tree, that give
Them place to grow and propagate.

Oh; lowly plant, how oft thou'rt spurned,
Or passed unseen by common eye
As though of thee no good was learned,
Thine only lot to live and die !

But closer look with care and thought,
Strange are thy forms and wondrous fair;
With grace enchanting they are wrought,
Their coloring rich, their shading rare.

Be thou our pattern, humble one;
May we as patient live each day;
Our duty e'er as bravely done,
Our will, the Master to obey.

OUR BIRD FRIENDS.

The Observer
Vol VII. no 4
April 1896

Edited by Jno. H. Sage, Portland, Conn.

Living Sunbeams.

BY HARRY EDWARD MILLER, DERBY, CONN.

ON a morning of mid-May I was standing near the pine woods, when a male ruby-throated humming-bird darted up to a wild columbine, which rested against my foot, and thrust his bill into all of the honey laden cups. For a moment there was a rivalry of color; the flowers with their soft crimson hue, and the bird with the light scintillating from his plumage.

A sudden movement on my part caused a number of frightened squeaks from the bird, as he fluttered in front of me for an instant, undecided as to my being a part of animate or inanimate nature. But his decision was formed at last, for when I moved again he vanished more quickly than he had flashed upon the scene. Surely, I thought, one should not be inclined to doubt the disappearance of the wood fairies when such visions are met with in our rambles. Those ethereal creatures of the imagination must live once more in the form of the ruby-throated humming-bird, which is to be met with so often haunting those quiet woodland aisles, which seem to be adapted for the reposing place of Father Time, should he ever wish to halt in his journey.

Later in the day, I was whistling in a dark and lonesome part of the woods to see if any of the forest birds would be attracted by the sound at the noontime hour. First appeared a group of ovenbirds; then a wood and hermit thrush, followed by red-eyed and yellow-throated vireos, accompanied by a great-crested flycatcher. Besides these, a yellow-breasted chat approached the scene in a cautious manner, while a pair of blue jays promenaded on the limbs of a white birch tree, flirting their feathers and shrieking loudly, to the extreme disgust of the more decorous residents of birdland.

Last of the throng to appear were two humming-birds, with their tiny bodies seeming almost lost in the giant treetops. I have seen one of these diminutive creatures perched in the uppermost branches of a tall sycamore when the sky forming a background revealed most fully the symmetry of his form, which to me always suggests the noble contour of the eagle, though not every observer would expect to find a commanding personage in such a tiny individual.

One of these woodland fairies settled upon the point of a dead limb, and I have noticed that humming-birds have a particular affection for the bare branches in preference to those clad with foliage. Such lofty outlooks are favored by the hawk and eagle, since from these situations they can best watch for their prey, and perhaps the humming-bird seeks such an elevated post on a bare limb for the reason that he can be on the lookout for the tiny insects which when swarming in the air are invisible to man.

This seemed a most favorable day for meeting humming-birds in the woods; and I soon came to a cluster of white birch trees where one of these birds flitting about the branches appeared to be the only occupant of the grove. Yet there was a brown wood-frog basking on a patch of moss, and a tree-toad in the fork of a beech sapling, to keep the bird company. The group of birch trees remaining formed a monument to the forest of which they were once a part, and which with the advance of civilization had grown less and less to the present narrow limits of a diminutive woodland. The wood nymphs must certainly have vanished from the region long since, when they heard the ring of the woodcutter's axe, and saw their forest melting away before man, who had usurped from them their dominion. The little pool hidden within the cluster of birches is now choked with dead wood and an accumulation of autumn leaves, quite different from when it was strictly guarded and kept clear as the bathing resort of the wood nymphs.

One of the most difficult birds to observe that it has ever been my fortune to meet, was on a mid-August morning when I found a young humming-bird perched on the top branches of a very tall ash tree. My attention was first called to him by his low squeaking notes, which sounded like the echoes of a cricket's voice from the farther part of the woodland. The youngster did not have the activity so characteristic of his parents, but moved more leisurely from perch to perch, and as he seemed not unlike a bee, first appearing, then disappearing in the full leafed tree tops, the task of observing him was more difficult than with any bird which I have met in wood or field. My patient waiting was not rewarded by the appearance of the old birds, whom I expected every moment, with insects or the nectar from some flower to give the youngster the breakfast for which he was calling.

I know that many naturalists, as well as many who are not, believe the humming-bird to subsist entirely upon the nectar of flowers, quite independent of an insect diet. It is certain enough that they visit the flowers not only for the sweet juices, but the small insects which frequent the blossoms, while they seize other insects when making their flights, or dash from a dead twig of some shrub or tree to catch the unwary prey. But so rapid are all the humming-bird movements that these actions are

A. H. B. Jordan writes that a Rubythroated Hummer met death in a peculiar manner at their mill at Johnsonburg, Pa. It flew into the bleachery window, and, encountering the flumes of chlorine, dropped dead in an instant as if it had been shot.

O. & O. Vol. 18, July, 1893 p. 105

35. **Trochilus colubris.** Ruby-throated Hummingbird.—On the 24th of March I noticed several male birds, which were the first I had seen at this point. Two of these were seen half a mile from the shore, as they passed by the open boat in which I went from one key to the other. From this time they were more or less common till the 29th, when the migration seemed to be at its height and I took seven adult males. After about April 2 I did not see any. Only one female was noted during my stay. The adult males were, however, as abundant, if not more so, than I ever noted them at any point on the mainland in the spring migration. It was very curious to meet these birds, when at considerable distance from land. Frequently while fishing and collecting water birds I noticed Hummingbirds that were always identified, when close enough to be seen plainly, as this species. One morning I counted six pass by the boat in this way. At such times their flight was direct and very rapid, and all were going in a northerly direction. They flew about twenty-five feet above the water and did not appear in any way fatigued, nor show any desire to alight on the boat, as small birds crossing the water so frequently do. The individuals taken on Garden Key, a dozen or more in all, were in superb plumage and good condition. They fed on cultivated flowers, that had been planted near some of the houses, and seemed as much at home as in our northern flower beds.

Dry Tortugas, Fla. March & April, 1890, W. E. D. Scott

AUK, VII, Oct. 1890, p. 310

1349. *Hummingbird and Sparrow.* By Walter B. Barrows, Ass't. Ornithologist, U. S. Dep't of Agriculture. *Ibid.*, Vol. XXIX, No. 2, Aug. 4, p. 23.—Account of a battle between a Hummingbird and English Sparrow resulting, presumably, in the death of the latter. (See also note by O. O. S., *ibid.*, No. 5, Aug. 25, p. 86.) **For. & Stream.**

937. *A Humming Bird Combat.* By Chas. C. Truesdell, Jr. *Ibid.*, Sept. 18, p. 143. **For. & Stream. XXIII**

1155. *Swifts, Humming Birds and Goatsuckers.* By R. W. Shufeldt. *Ibid.*, No. 23, July 1, p. 447.—On the relationship of these birds, and an appeal for aid in obtaining material for investigation. **For. & Stream, Vol. XXVI**

920. *The Humming Bird (Trochilus Colubris).* By Wilmot. *Ibid.*, Vol. XXIII, July 31, p. 3.—Its nesting habits. **For. & Stream.**

1345. *On the Tongue in the Humming Bird.* With cuts. By R. W. Shufeldt, C. M. Z. S., etc. *Ibid.*, No. 25, July 14, p. 531. **For. & Stream, Vol. XXVIII**

824. *The Humming-bird[s]—(Trochilidæ).* By Col. A. G. Brackett, U.S. Army. *Ibid.*, March 8, pp. 232, 233.—Unimportant notes on several North American species. **American Field. XXI**

The Oologist. 1584. *Wonderful Peculiarities of the Ruby-throat Hummingbird.* By James B. Purdy. *Ibid.*, No. 2, March-May, 1887, p. 72 **Auk, VII. Jan. 1890. p. 84.**

1749. *Hummingbird on the Ground.* By Chas. H. Eldon. *Ibid.*—*Trochilus colubris* alighting on the ground. **For. & Stream. Vol. 32**, March 7. p. 131.

The Oologist. 1608. *Reminiscences of 1886.* By H[arry] T[rippett]. *Ibid.*, Nos. 8 and 9, Aug. and Sept., 1888, pp. 119-120.—Nesting habits of *Trochilus colubris*, *Myiarchus crinitus*, and *Icterus galbula*. **Auk, VII. Jan. 1890. p. 85.**

590. *Do humming-birds fly backward?* By Bradford Torrey. *Ibid.*, No. 34, p. 436.—Answered affirmatively. **Science, Vol. II**

1395. *Observations on Young Hummingbirds.* By H. S. Greenough. *Ibid.*, No. 6, June, 1886, pp. 528-532. **Amer. Naturalist, XX**

1814. *"In a Garden."* By Coahoma [=F. G. Dabney]. *Ibid.*, p. 265.—A fight between two *Trochilus colubris.* **For. & Stream. Vol. 33**, Oct. 24.

1995. *Ruby-throated Humming Bird.* [By R. B. Trouslot.] *Ibid.*, No. 7, Feb., 1886, p. 100.—Habits in captivity. **Hoosier Naturalist, Vol. I.**

Metallura vs. Laticauda.— In ' The Auk ' for January, 1902, page 92, Dr. Charles W. Richmond proposed to replace *Metallura* Gould 1847, by the earlier name *Laticauda* Lesson 1843, and the latter has been adopted in the recently published ' Birds of South America ' by Brabourne and Chubb (Vol. I, page 137).

Fortunately, however, this change is unnecessary as there is an earlier *Laticauda* published by Laurenti in 1768 for a genus of serpents. Dr. Stejneger writes me that this is a perfectly valid name, diagnosed and with species. The genus of South American Hummingbirds will therefore retain its long established name, *Metallura*.— W. DeW. Miller, *American Museum of Natural History, New York City.* Auk 30, Oct. 1913. p. 583.

Doryfera vs. Hemistephania.— In his Birds of North and Middle America, Part V, page 342, Ridgway, following the British Museum Catalogue (Salvin, 1892, p. 38) and the Hand-List (1900), uses *Hemistephania* Reichenbach, 1854, as the generic name of the Lance-billed Hummingbirds, rejecting *Doryfera* Gould, 1847, because of the prior *Doryphora* Illiger, 1809. Inasmuch as the second element of these names, though of the same signification, is from a different language and the rules of American Ornithologists' Union Code do not allow the rejection or emendation of a hybrid name, there seems to be no reason why *Doryfera* should not be employed. *Doryfera* was used by Hartert in the Tierreich (1900, p. 10) and in Journal für Ornithologie (1900, p. 358) he defends its use.— W. DeW. Miller, *American Museum of Natural History, New York City.* Auk 31, Jan. 1914. p. 101-102.